

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

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
28 January 2010 (28.01.2010)

(10) International Publication Number
WO 2010/011874 A2

PCT

(51) International Patent Classification:
C12N 1/21 (2006.01) *C12P 7/52* (2006.01)
C12N 15/09 (2006.01)

(21) International Application Number:
PCT/US2009/051607

(22) International Filing Date:
23 July 2009 (23.07.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/135,861 23 July 2008 (23.07.2008) US
61/135,862 23 July 2008 (23.07.2008) US
61/088,331 12 August 2008 (12.08.2008) US
61/096,937 15 September 2008 (15.09.2008) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- without international search report and to be republished upon receipt of that report (Rule 48.2(g))
- with sequence listing part of description (Rule 5.2(a))

(54) Title: METHODS, SYSTEMS AND COMPOSITIONS FOR INCREASED MICROORGANISM TOLERANCE TO AND PRODUCTION OF 3-HYDROXYPROPIONIC ACID (3-HP)

(57) Abstract: The present invention relates to methods, systems and compositions, including genetically modified microorganisms, adapted to exhibit increased tolerance to 3-hydroxypropionic acid (3-HP), particularly through alterations to interrelated metabolic pathways identified herein as the 3-HP toleragenic pathway complex ("3HPTGC"). In various embodiments these organisms are genetically modified so that an increased 3-HP tolerance is achieved. Also, genetic modifications may be made to provide at least one genetic modification to any of one or more 3-HP biosynthesis pathways in microorganisms comprising one or more genetic modifications of the 3HPTGC.



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