

CORRECTED VERSION

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
22 February 2007 (22.02.2007)

PCT

(10) International Publication Number  
**WO 2007/021297 A1**

(51) International Patent Classification:

*C12P 13/20* (2006.01)      *C12N 9/10* (2006.01)  
*C12P 13/06* (2006.01)      *C12N 15/12* (2006.01)  
*C12P 21/00* (2006.01)      *C12N 15/54* (2006.01)

(21) International Application Number:

PCT/US2005/044041

(22) International Filing Date:

1 December 2005 (01.12.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/709,364      18 August 2005 (18.08.2005)      US

(71) Applicant (for all designated States except US): **AMBRX, INC.** [US/US]; 10975 N. Torrey Pines Road, Suite 100, La Jolla, California 92037 (US).

(72) Inventor: **TIAN, Feng**; 9003 Buckwheat Street, San Diego, California 92129 (US).

(74) Agent: **WALLEN, John, W., III**; Ambrx, Inc., 10975 N. Torrey Pines Road, Suite 100, La Jolla, California 92037 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, 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, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(48) Date of publication of this corrected version:

28 June 2007

(15) Information about Correction:

see PCT Gazette No. 26/2007 of 28 June 2007

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.

(54) Title: COMPOSITIONS OF tRNA AND USES THEREOF

(57) Abstract: Compositions and methods of producing components of protein biosynthetic machinery that include orthogonal tRNA's, orthogonal aminoacyl- tRNA synthetases, and orthogonal pairs of tRNA's /synthetases are provided. Methods for identifying these orthogonal pairs are also provided along with methods of producing proteins using these orthogonal pairs.

WO 2007/021297 A1