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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
21 July 2005 (21.07.2005)

PCT

(10) International Publication Number
WO 2005/065321 A2

(51) International Patent Classification: Not classified

(21) International Application Number:
PCT/US2004/043710

(22) International Filing Date:
29 December 2004 (29.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/533,381 29 December 2003 (29.12.2003) US

(71) Applicant *(for all designated States except US)*: **NUGEN TECHNOLOGIES, INC.** [US/US]; 821 Industrial Road, Unit A, San Carlos, CA 94070 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **KURN, Nurith** [IL/US]; 2876 Ramona Street, Palo Alto, CA 94306 (US). **DAFFORN, Geoffrey, A.** [US/US]; 1669 Christina Drive, Los Altos, CA 94024 (US).

(74) Agents: **POLIZZI, Catherine, M.** et al.; Morrison & Foerster LLP, 755 Page Mill Road, Palo Alto, CA 94304 (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, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, 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, 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:**
— *without international search report and to be republished upon receipt of that 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.*

WO 2005/065321 A2

(54) Title: METHODS FOR ANALYSIS OF NUCLEIC ACID METHYLATION STATUS AND METHODS FOR FRAGMENTATION, LABELING AND IMMOBILIZATION OF NUCLEIC ACIDS

(57) Abstract: The invention relates to methods for analysis of nucleic acid methylation status, and fragmentation and/or labeling and/or immobilization of nucleic acids. More particularly, the invention relates to methods for fragmentation and/or labeling and/or immobilization of nucleic acids comprising labeling and/or cleavage and/or immobilization at abasic sites.