

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
24 March 2005 (24.03.2005)

PCT

(10) International Publication Number
WO 2005/026359 A3

- (51) International Patent Classification⁷: **C12N 15/12**, 15/11, A61K 38/17, 48/00, G01N 33/68
- (21) International Application Number: PCT/EP2004/010307
- (22) International Filing Date: 15 September 2004 (15.09.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/502,633 15 September 2003 (15.09.2003) US
- (71) Applicant (for all designated States except US): **CENIX BIOSCIENCE GMBH** [DE/DE]; Tatzberg 47, 01307 Dresden (DE).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **ECHEVERRI, Christophe** [CA/DE]; Vogesenweg 5, 01309 Dresden (DE). **HYMAN, Anthony** [GB/DE]; Regerstrasse 2, 01309 Dresden (DE). **GÖNCZY, Pierre** [CH/CH]; 12, avenue de la Harpe, CH-1007 Lausanne (CH). **SÖN-NICHSEN, Birte** [DE/DE]; Stendaler Strasse 20, 01109 Dresden (DE). **JONES, Steven** [GB/CA]; 600 West 10th Avenue, Vancouver, British Columbia V5Z 4E6 (CA). **WALSH, Andrew** [CA/DE]; Burckhardt Strasse 6, 01307 Dresden (DE). **KOSKI, Liisa** [CA/CA]; 5046 Saint Hubert, Montreal, Quebec H2J2V1 (CA).
- (74) Agent: **ISENBRUCK, Günter**; Isenbruck, Bösl, Hörschler, Wichmann, Huhn, Theodor-Heuss-Anlage 12 68165 Mannheim (DE).
- (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, IT, 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:**
- 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
- (88) Date of publication of the international search report: 9 September 2005
- 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: THE USE OF EUKARYOTIC GENES AFFECTING SPINDLE FORMATION OR MICROTUBULE FUNCTION DURING CELL DIVISION FOR DIAGNOSIS AND TREATMENT OF PROLIFERATIVE DISEASES

(57) Abstract: The present invention relates to the significant functional role of several C. elegans genes and of their corresponding gene products in spindle formation or microtubule function during cell division that could be identified by means of RNA-mediated interference (RNAi) and to the identification and isolation of functional orthologs of said genes including all biologically functional derivatives thereof. The invention further relates to the use of said genes and gene products (including said orthologs) in the development or isolation of anti-proliferative agents, particularly their use in appropriate screening assays, and their use for diagnosis and treatment of proliferative and other diseases. In particular, the invention relates to the use of small interfering RNAs derived from said genes for the treatment of proliferative diseases.



WO 2005/026359 A3