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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
5 August 2004 (05.08.2004)

PCT

(10) International Publication Number
WO 2004/064972 A3

(51) International Patent Classification[7]: G01N 33/68, 33/94, C07D 303/14, 303/16, 207/40, 207/44, 311/82, 317/36, 295/02, 209/48, 495/04, 231/10, 207/32, C07C 69/76

(21) International Application Number:
PCT/US2004/001037

(22) International Filing Date: 16 January 2004 (16.01.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/441,398 16 January 2003 (16.01.2003) US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:
US 60/441,398 (CON)
Filed on 16 January 2003 (16.01.2003)

(71) Applicant *(for all designated States except US)*: **HK PHARMACEUTICALS, INC.** [US/US]; 840 Memorial Drive, Cambridge, MA 02139 (US).

(71) Applicant and
(72) Inventor: **KÖSTER, Hubert** [DE/US]; Villa Wellingtonia, Via Cantonale 84, CH-6918 Figino (CH).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **LITTLE, Daniel, Paul** [US/US]; 62 Church Street, Winchester, MA 01890 (US). **SIDDIQI, Suhaib, Mahmood** [US/US]; 37 University Drive, Burlington, MA 01803 (US). **GREALISH, Matthew, Peter** [US/US]; 863 Sapphire Street #13, San Diego, CA 92109 (US). **MARAPPAN, Subramanian** [IN/US]; 9924 Kika Court #2414, San Diego, CA 92129 (US). **HASSMAN III, Chester, Frederick** [US/US]; 586 Edgewater Avenue, Oceanside, CA 92057 (US). **YIP, Ping** [US/US]; 3641 Copley Avenue, San Diego, CA 92116 (US).

(74) Agents: **SEIDMAN, Stephanie, L.** et al.; U.S. Registration No. 33,779, Fish & Richardson P.C., 12390 El Camino Real, San Diego, CA 92130 (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 (patent), 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, 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, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:
— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designations 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, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*

Published:
— *with international search report*

(88) Date of publication of the international search report:
27 January 2005

(15) Information about Correction:
Previous Correction:
see PCT Gazette No. 38/2004 of 16 September 2004, Section II

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: CAPTURE COMPOUNDS, COLLECTIONS THEREOF AND METHODS FOR ANALYZING THE PROTEOME AND COMPLEX COMPOSITIONS

(57) Abstract: Capture compounds and collections thereof and methods using the compounds for the analysis of biomolecules are provided. In particular, collections, compounds and methods are provided for analyzing complex protein mixtures, such as the proteome. The compounds are multifunctional reagents that provide for the separation and isolation of complex protein mixtures. Automated systems for performing the methods also are provided.

WO 2004/064972 A3