

(19) World Intellectual Property  
Organization  
International Bureau



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

PCT

(10) International Publication Number  
**WO 2005/025540 A2**

(51) International Patent Classification<sup>7</sup>: **A61K 9/12**, 9/14,  
31/198, 31/727, A61P 11/12

(21) International Application Number:  
PCT/GB2004/003932

(22) International Filing Date:  
15 September 2004 (15.09.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0321611.6 15 September 2003 (15.09.2003) GB  
0327723.3 28 November 2003 (28.11.2003) GB

(71) Applicant (for all designated States except US): **VECTURA LIMITED** [GB/GB]; 1 Prospect West, Chippenham Wiltshire SN14 6FH (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **MORTON, David**

[GB/GB]; 1 Prospect West, Chippenham Wiltshire SN14 6FH (GB). **GANDERTON, David** [GB/GB]; 1 Prospect West, Chippenham Wiltshire SN14 6FH (GB). **STANFORTH, John** [GB/GB]; 1 Prospect West, Chippenham Wiltshire SN14 6FH (GB). **KAMLAG, Yorick** [NL/GB]; 1 Prospect West, Chippenham Wiltshire SN14 6FH (GB).

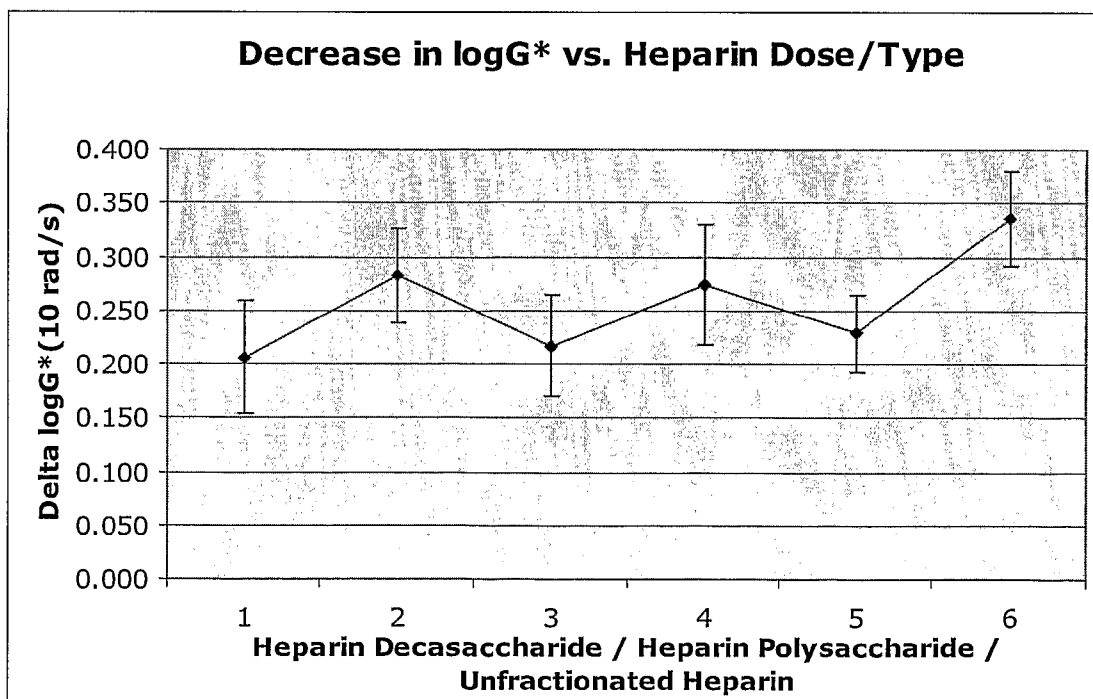
(74) Agents: **GILL, Sian** et al.; Venner Shipley LLP, 20 Little Britain, London EC1A 7DH (GB).

(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,

[Continued on next page]

(54) Title: PHARMACEUTICAL COMPOSITIONS



(57) Abstract: The present invention relates to pharmaceutical compositions which are useful in the treatment of diseases where excess mucus is present in the respiratory tract, such as cystic fibrosis and chronic obstructive pulmonary disease. In particular, the invention relates to pharmaceutical compositions for administration by pulmonary inhalation.

WO 2005/025540 A2



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:**

— *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.*