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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
23 June 2005 (23.06.2005)

PCT

(10) International Publication Number
WO 2005/056575 A2

(51) International Patent Classification[7]: C07K

(21) International Application Number:
PCT/US2004/040381

(22) International Filing Date: 3 December 2004 (03.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/526,859 3 December 2003 (03.12.2003) US

(71) Applicant *(for all designated States except US)*: **THE SCRIPPS RESEARCH INSTITUTE** [US/US]; 10550 North Torrey Pines Road, La Jolla, CA 92037 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **BARBAS, Carlos, F.** [—/US]; 624 Granados Avenue, Solano Beach, CA 92075 (US). **CHUNG, Jenho** [KR/KR]; 116-109 Woobang Apartment, Yonghung Dong, Bukgu, Pohang, Kyungbuk, South Korea 791-171 (KR).

(74) Agent: **BELL & ASSOCIATES**; 416 Funston Avenue, Suite 100, San Francisco, CA 94118 (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 2005/056575 A2

(54) Title: INTEGRIN $\alpha_{IIb}\beta_3$ SPECIFIC ANTIBODIES AND PEPTIDES

$V_H$

| | FR1 | CDR1 | FR2 | CDR2 | FR3 | CDR3 | FR4 |
|---|---|---|---|---|---|---|---|
| | 1 30 | 31 35 | 36 49 | 50 65 | 66 97 | 98 113 | 114 118 |
| RAD87 | EVQLLESGGGLVQPGGSLRLSCAGSGFTFS | SYAMH | WVRQAPGKGLEWVS | AIGTGGG TYYADSVKG | RFTISRDNAKNSLYLQMNSLRAEDTAVYYCAR | VRVVCRADRRCYAMDV | WGQGT |
| RAD9 | EVQLLESGGGLVQPGGSLRLSCAGSGFTFS | SYAMH | WVRQAPGKGLEWVS | AIGTGGG TYYADSVKG | RFTISRDNAKNSLYLQMNSLRAEDTAVYYCAR | VRVVCRADRRCYAMDV | WGQGT |
| RAD12 | EVQLLESGGGLVQPGGSLRLSCAGSGFTFS | SYAMH | WVRQAPGKGLEWVS | AIGTGGG TYYADSVKG | RFTISRDNAKNSLYLQMNSLRAEDTAVYYCAR | VRVVCRADRRCYAMDV | WGQGT |
| RAD34 | EVQLLESGGGLVQPGGSLRLSCAGSGFTFS | SYAMH | WVRQAPGKGLEWVS | AIGTGGG TYYADSVKG | RFTISRDNAKNSLYLQMNSLRAEDTAVYYCAR | VRVVCRADRRCYAMDV | WGQGT |
| RAD3 | EVQLLESGGGLVHPGGSLRLSCAGSGFTFS | SYAMH | WVRQAPGKGLEWVS | AIGTGGG TYYADSVKG | RFTISRDNAKNSLYLQMNSLRAEDTAVYYCAR | VRVVCRADRRCYAMDV | WGQGT |
| RAD32 | EVQLLESGGGLVHPGGSLRLSCAGSGFTFS | SYAMH | WVRQAPGKGLEWVS | AIGTGGG TYYADSVKG | RFTVSRDNSQSTAYLQINSLRAEDTAVYYCAR | VGVWCRADKRCYAMDV | WGQGT |
| RAD88 | EVQLLESGGGLVHPGGSLRLSCAGSGFTFS | SYAMH | WVRQAPGKGLEWVS | AIGTGGG TYYADSVKG | RFTVSRDNSQSTAYLQINSLRAEDTAVYYCAR | VGVWCRADKRCYAMDV | WGQGT |
| RAD1 | EVQLLESGGGLVQPGGSLRLSCAASGFTFS | FYGMS | WVRQAPGKGLEWVS | GVSSSGITTYYAASVRG | RFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR | VRTHSRADRREYAMDV | WGQGT |

(57) Abstract: The present invention provides integrin $\alpha_{IIb}\beta_3$ specific antibodies and peptides. The antibodies and peptides demonstrate little or no immunoreactivity with other integrins. Methods for inhibiting platelet aggregation using the antibodies and peptides are also provided.