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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
22 January 2004 (22.01.2004)

PCT

(10) International Publication Number
WO 2004/007538 A2

(51) International Patent Classification[7]: C07K 14/08, A61K 39/12

(21) International Application Number: PCT/EP2003/007572

(22) International Filing Date: 14 July 2003 (14.07.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/396,126 17 July 2002 (17.07.2002) US

(71) Applicant *(for all designated States except US)*: **CYTOS BIOTECHNOLOGY AG** [CH/CH]; Wagistrasse 21, CH-8952 Zurich-Shlieren (CH).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **BACHMANN, Martin, F.** [CH/CH]; Goldackerweg 8, CH-8472 Seuzach (CH). **TISSOT, Alain** [CH/CH]; Segantinistr. 35, CH-8049 Zürich (CH). **PUMPENS, Paul** [LV/LV]; Biomedical Research and Study Centre, University of Latvia, Ratsupites Iela 1, LV-1067 Riga (LV). **CIELENS, Indulis** [LV/LV]; Biomedical Research and Study Centre, University of Latvia, Ratsupites Iela 1, LV-1067 Riga (LV). **RENHOFA, Regina** [LV/LV]; Biomedical Research and Study Centre, University of Latvia, Ratsupites Iela 1, LV-1067 Riga (LV).

(74) Agent: **WICHMANN, Hendrik**; Isenbruck Bösl Hörschler Wichmann Huhn, Postfach 86 08 80, 81635 München (DE).

(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, 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, 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 *(regional)*: ARIPO patent (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:
— *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.

(54) Title: MOLECULAR ANTIGEN ARRAYS

(57) Abstract: The present invention provides a composition comprising an AP205 virus like particle (VLP) and an antigen. The invention also provides a process for producing an antigen or antigenic determinant bound to AP205 VLP. AP205 VLP bound to an antigen is useful in the production of compositions for inducing immune responses that are useful for the prevention or treatment of diseases, disorders or conditions including infectious diseases, allergies, cancer, drug addiction, poisoning and to efficiently induce self-specific immune responses, in particular antibody responses.

WO 2004/007538 A2