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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
4 May 2006 (04.05.2006)

PCT

(10) International Publication Number
WO 2006/045796 A2

(51) International Patent Classification: Not classified

(21) International Application Number:
PCT/EP2005/055529

(22) International Filing Date: 25 October 2005 (25.10.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/621,465 25 October 2004 (25.10.2004) US

(71) Applicant *(for all designated States except US)*: **CYTOS BIOTECHNOLOGY AG** [CH/CH]; Wagistrasse 25, CH-8952 Schlieren (CH).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **BACHMANN, Martin** [CH/CH]; Cytos Biotechnology AG, Goldackerweg 8, CH-8472 Seuzach (CH). **FULURIJA, Alma** [AU/CH]; Schulstrasse 69, CH-8952 Schlieren (CH). **SAUDAN, Philippe** [CH/CH]; Durrenrainstrasse 20, CH-8422 Pfungen (CH).

(74) Agent: **SPERRLE, Martin**; Cytos Biotechnology AG, IP & Legal Affairs, Wagistrasse 25, CH-8952 Schlieren (CH).

(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, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, 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, LV, 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).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*
— *of inventorship (Rule 4.17(iv))*

Published:

— *without international search report and to be republished upon receipt of that report*
— *with sequence listing part of description published separately in electronic form and available upon request from the International Bureau*

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:** GASTRIC INHIBITORY POLYPEPTIDE (GIP) ANTIGEN ARRAYS AND USES THEREOF

(57) **Abstract:** The present invention is in the fields of medicine, public health, immunology, molecular biology and virology. The present invention provides, *inter alia*, a composition comprising a virus-like particle (VLP) and at least one antigen, wherein said antigen is a GIP protein or a GIP fragment linked to the VLP respectively. The invention also provides a method for producing the aforesaid composition. The compositions of this invention are useful in the production of vaccines, in particular, for the prevention and/or treatment of obesity and hereby, in particular, by inducing efficient immune responses, in particular antibody responses. Furthermore, the compositions of the invention are particularly useful to efficiently induce self-specific immune responses within the indicated context.

WO 2006/045796 A2