9805650-0
IPOS COPY
IPER + ANNEXES
+ REPLACEMENT
SHEETS

PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 :		(11) International Publication Number:
A61K 9/127, C12N 15/88	A1	WO 97/41834
		(43) International Publication Date: 13 November 1997 (13.11.97)

(21) International Application Number: PCT/EP97/02268

(22) International Filing Date: 4 May 1997 (04.05.97)

(30) Priority Data:
96107282.4 8 May 1996 (08.05.96) EP
(34) Countries for which the regional or international application was filed: DE et al.

(71) Applicant *(for all designated States except US)*: NIKA HEALTH PRODUCTS LIMITED [LI/LI]; Städtle 36, FL-9490 Vaduz (LI).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: WÄLTI, Ernst, Rudolf [CH/CH]; Moosgasse 84, CH-3053 Münchenbuchsee (CH). GLÜCK, Reinhard [CH/CH]; Chasseralstrasse 156, CH-3028 Spiegel bei Bern (CH). KLEIN, Peter [CH/CH]; Neuhof, CH-4438 Langenbruck (CH).

(74) Agent: BÜCHEL & PARTNER AG; Letzanaweg 25, FL-9495 Triesen (LI).

(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).

Published
With international search report.
Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: CATIONIC VIROSOMES AS TRANSFER SYSTEM FOR GENETIC MATERIAL

(57) Abstract

The present invention relates to a positively charged virosome for efficient delivery of genetic material to resting or proliferating mammalian cells in vitro and in vivo. The virosome membrane contains cationic and/or polycationic lipids, at least one viral fusion peptide and preferably at least one cell-specific marker, advantageously selected from the group consisting of monoclonal antibodies, antibody fragments $F(ab')_2$ and Fab', cytokines, and growth factors, for a selective detection and binding of target cells. The invention further relates to a method for the manufacture of the novel virosomes and to applications thereof, particularly for the manufacture of pharmaceutical compositions to treat cancer or leukemia.