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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
25 June 2009 (25.06.2009)

PCT

(10) International Publication Number
WO 2009/078820 A1

(51) International Patent Classification:
C07K 7/08 (2006.01) *A61K 38/10* (2006.01)
A61K 38/16 (2006.01) *A61P 31/04* (2006.01)
C07K 14/00 (2006.01) *C07K 14/16* (2006.01)

(21) International Application Number:
PCT/SG2008/000492

(22) International Filing Date:
18 December 2008 (18.12.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/006,089 18 December 2007 (18.12.2007) US

(71) Applicant *(for all designated States except US)*: **AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH** [SG/SG]; 20 Biopolis Way, #07-01, Centros, Singapore 138668 (SG).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **YANG, YI-YAN** [SG/SG]; Institute Of Bioengineering And Nanotechnology, 31 Biopolis Way, #04-01, Nanos, Singapore 138669 (SG). **LIU, LIHONG** [SG/SG]; Institute Of Bioengineering And Nanotechnology, 31 Biopolis Way, #04-01, Nanos, Singapore 138669 (SG).

(74) Agent: **ELLA CHEONG SPRUSON & FERGUSON (SINGAPORE) PTE LTD**; P.O. Box 1531, Robinson Road Post Office, Singapore 903031 (SG).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, 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, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, 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:
— *with international search report*

(54) **Title:** CATIONIC CORE-SHELL PEPTIDE NANOPARTICLES

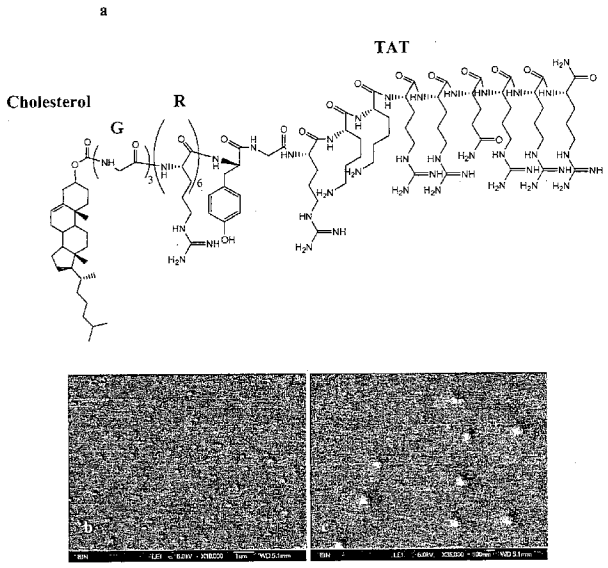


Fig. 1

(57) **Abstract:** The invention discloses an amphiphilic antimicrobial substance comprising a hydrophobic portion coupled to a cationic oligopeptide portion. The cationic oligopeptide portion may comprise a protein transduction domain coupled to a cationic oligopeptide group.

WO 2009/078820 A1