

CORRECTED VERSION

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
3 November 2011 (03.11.2011)

PCT

(10) International Publication Number
WO 2011/134998 A8(51) International Patent Classification:
C12N 9/36 (2006.01) *C12N 9/52* (2006.01)(21) International Application Number:
PCT/EP2011/056657(22) International Filing Date:
27 April 2011 (27.04.2011)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10 161 170.5 27 April 2010 (27.04.2010) EP(71) Applicant (for all designated States except US): **LYSANDO HOLDING AG** [LI/LI]; Wangerberg 688, 9497 Triesenberg (LI).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **MILLER, Stefan** [DE/DE]; Roggenweg 11, 93055 Regensburg (DE).(74) Agent: **DEHMEL, Albrecht**; Herzogspitalstraße 11, 80331 München (DE).

(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, CL, 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, 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, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

[Continued on next page]

(54) Title: METHOD OF REDUCING BIOFILMS

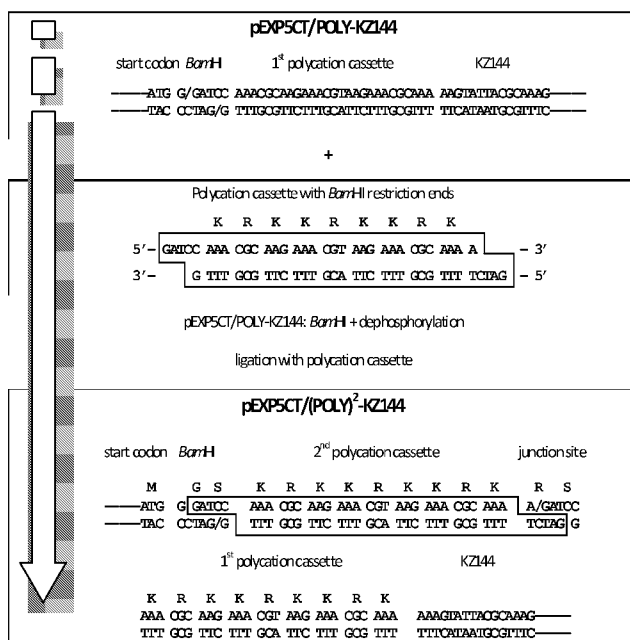


Figure 1

(57) Abstract: The present invention relates to methods of eliminating, reducing or preventing bacterial biofilms by means of a fusion protein comprising an endolysin, an autolysin or a bacteriocin to which a peptide with membrane or LPS disrupting activity is fused. Further, the present invention relates to fusion proteins for use as a medicament, in particular for the treatment or prevention of Gram-negative and/or Gram-positive bacterial infections associated with bacterial biofilm, as diagnostic means, disinfectant or as cosmetic substance. The present invention also relates to the removal or reduction or prevention of Gram-negative and/or Gram-positive bacterial contamination associated with bacterial biofilm of foodstuff, of food processing equipment, of food processing plants, of surfaces coming into contact with foodstuff, of medical devices, of surfaces in hospitals and surgeries. Furthermore, the present invention relates to the use of said fusion protein as a diagnostic means in medicinal, food or feed or environmental diagnostic associated with bacterial biofilm.



— *with sequence listing part of description (Rule 5.2(a))*

(15) Information about Correction:
see Notice of 15 December 2011

(48) Date of publication of this corrected version:

15 December 2011