

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

(19) World Intellectual Property  
Organization

International Bureau

(43) International Publication Date  
17 July 2025 (17.07.2025)



(10) International Publication Number  
**WO 2025/149609 A1**

(51) International Patent Classification:

A61K 39/085 (2006.01) A61P 31/04 (2006.01)

A61K 9/19 (2006.01) C07K 14/31 (2006.01)

(21) International Application Number:

PCT/EP2025/050520

(22) International Filing Date:

10 January 2025 (10.01.2025)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/620,746 12 January 2024 (12.01.2024) US

63/620,747 12 January 2024 (12.01.2024) US

(71) Applicant: **LIMMATECH BIOLOGICS AG** [CH/CH];  
Grabenstr. 3, 8952 Schlieren (CH).

(72) Inventors: **AMAN, Mohammad Javad**; 1207 Maple  
Grove Lane, Rockville, Maryland 20850 (US).  
**HOLTSBERG, Frederick Wayne**; 4625 Buffinton Lane,  
Taneytown, Maryland 21787 (US).

(74) Agent: **JONES DAY**; Gewürzmühlstr. 11, 80538 Munich  
(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, BN, BR, BW, BY, BZ,  
CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM,

DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,  
HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG,  
KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY,  
MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA,  
NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO,  
RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH,  
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UY, UZ, VC, VN,  
WS, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, CV,  
GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST,  
SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ,  
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, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE,  
SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- with sequence listing part of description (Rule 5.2(a))
- in black and white; the international application as filed  
contained color or greyscale and is available for download  
from PATENTSCOPE

(54) Title: FORMULATIONS FOR STAPHYLOCOCCUS AUREUS VACCINE

(57) Abstract: A lyophilized pharmaceutical composition for  
Staphylococcus Aureus vaccine and the method of generating the  
lyophilized pharmaceutical composition are provided. Also pro-  
vided is a spray-freezed dried pharmaceutical composition for  
Staphylococcus Aureus vaccine and the method of generating the  
spray-freezed dried pharmaceutical composition.

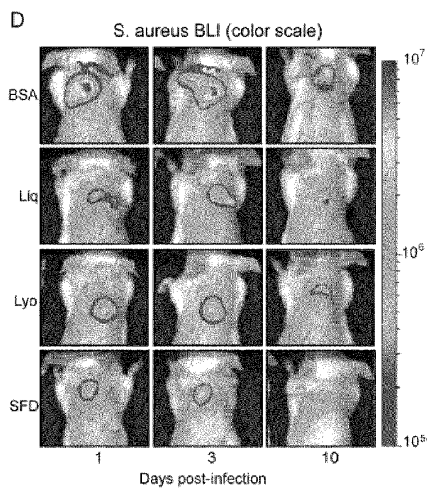


Fig. 2D

WO 2025/149609 A1