

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

(19) World Intellectual Property  
Organization  
International Bureau

(43) International Publication Date  
14 April 2022 (14.04.2022)



(10) International Publication Number  
**WO 2022/074453 A2**

(51) International Patent Classification:  
C12N 15/113 (2010.01) A61K 31/713 (2006.01)

(21) International Application Number:  
PCT/IB2021/000682

(22) International Filing Date:  
04 October 2021 (04.10.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
63/087,643 05 October 2020 (05.10.2020) US  
63/213,841 23 June 2021 (23.06.2021) US

(71) Applicant: **VERSAMEB AG** [CH/CH]; Hochberger-  
strasse 60C, 4057 Basel (CH).

(72) Inventors: **SELVARAJ, Justin, Antony**; Hochberger-  
strasse 60C, 4057 Basel (CH). **ZUIDEVELD, Klaas,  
Pieter**; Hochbergerstrasse 60C, 4057 Basel (CH).  
**SCHAFFHAUSER, Herve**; Hochbergerstrasse 60C, 4057  
Basel (CH). **HILLMANN-WULLNER, Petra**; Hochberg-  
erstrasse 60C, 4057 Basel (CH). **METZGER, Friedrich**;  
Hochbergerstrasse 60C, 4057 Basel (CH).

(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, CZ, DE, DJ, DK, DM, DO,  
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,

HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN,  
KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD,  
ME, MG, MK, MN, 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, UZ, VC, VN, WS, 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, RW, 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, 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).

**Declarations under Rule 4.17:**

— as to applicant's entitlement to apply for and be granted a  
patent (Rule 4.17(ii))

**Published:**

— without international search report and to be republished  
upon receipt of that report (Rule 48.2(g))  
— with sequence listing part of description (Rule 5.2(a))

(54) Title: COMPOSITIONS AND METHODS FOR SIMULTANEOUSLY MODULATING EXPRESSION OF GENES

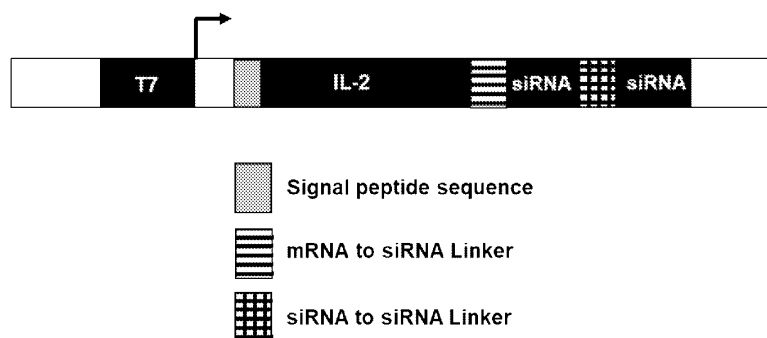


Figure 1

(57) Abstract: The present invention relates to compositions of recombinant polynucleic acid constructs comprising at least one nucleic acid sequence encoding an siRNA capable of binding to a target mRNA and at least one nucleic acid sequence encoding a gene of interest. Also disclosed herein is use of the compositions in treating cancers and in simultaneously modulating expression of two or more genes.



WO 2022/074453 A2