



(51) International Patent Classification:
C07K 7/08 (2006.01) A61P 35/00 (2006.01)
A61K 38/10 (2006.01)

(21) International Application Number:
PCT/SG2016/050079

(22) International Filing Date:
15 February 2016 (15.02.2016)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10201501119W 13 February 2015 (13.02.2015) SG

(71) Applicant: AGENCY FOR SCIENCE, TECHNOLOGY
AND RESEARCH [SG/SG]; 1 Fusionopolis Way, #20-10
Connexis, Singapore 138632 (SG).

(72) Inventors: TAN, Yaw Sing; c/o Bioinformatics Institute,
30 Biopolis Street, #07-01, Matrix, Singapore 138671
(SG). BROWN, Christopher John; c/o p53 Laboratory
(p53Lab), 8A Biomedical Grove, #06-04/05, Neuros/Im-
munos, Singapore 138648 (SG). VERMA, Chandra S; c/o
Bioinformatics Institute, 30 Biopolis Street, #07-01, Ma-
trix, Singapore 138671 (SG). FERRER GAGO, Fernando
Jose; c/o p53 Laboratory (p53Lab), 8A Biomedical Grove,
#06-04/05, Neuros/Immunos, Singapore 138648 (SG).

LANE, David P; c/o p53 Laboratory (p53Lab), 8A Bio-
medical Grove, #06-04/05, Neuros/Immunos, Singapore
138648 (SG). JOSEPH, Thomas; c/o Bioinformatics Insti-
tute, 30 Biopolis Street, #07-01, Matrix, Singapore 138671
(SG).

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

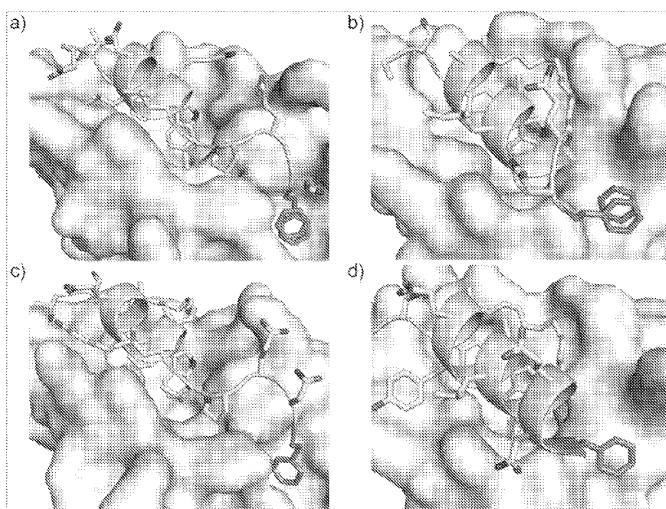
(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY,
BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR,
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, 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, 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,

[Continued on next page]

(54) Title: NON-MEMBRANE DISRUPTIVE p53 ACTIVATING STAPLED PEPTIDES

FIG. 2



(57) Abstract: The present invention relates to non-membrane disruptive and p53 activating stapled peptides, as well as methods of treatment of cancer involving the use of these peptides. In one embodiment, the peptide comprises or consist of the amino acid sequence of TSFXaa₁EYWXaa₃LLXaa₂, where Xaa₁ is (R)-2-(7'-octenyl)alanine or derivative thereof, or is (R)-2-(4'-pentenyl)alanine or derivative thereof; and Xaa₂ and Xaa₃ are independently any type of amino acid or modified amino acid. In another embodiment, the peptide comprising or consisting of the amino acid sequence of TSFXaa₁EYWXaa₃LLXaa₂ENXaa₅, wherein Xaa₁ and Xaa₃ are any type of amino acid or modified amino acid; Xaa₂ is S, or P, or (S)-2-(4'-pentenyl)alanine or a derivative of (S)-2-(4'-pentenyl)alanine; and wherein Xaa₅ is F or Y.



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))*

Declarations under Rule 4.17:

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

— *of inventorship (Rule 4.17(iv))*