

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
10 October 2024 (10.10.2024)



(10) International Publication Number
WO 2024/209376 A1

(51) International Patent Classification:

A61K 47/64 (2017.01) C07K 14/705 (2006.01)
A61K 38/16 (2006.01) C12N 9/16 (2006.01)
A61P 25/00 (2006.01)

(21) International Application Number:

PCT/IB2024/053264

(22) International Filing Date:

03 April 2024 (03.04.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/493,912 03 April 2023 (03.04.2023) US

(71) Applicant: NERVEN PHARMA CORP. [CA/CA];
112-970 Burrard Street, Unit 1290, Vancouver, British Co-
lumbia V6Z 2R4 (CA).

(72) Inventor: LUKASHEV, Matvey; 75 Mechanic Street, Up-
ton, Massachusetts 01568 (US).

(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, 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,

(54) Title: PROTEIN TYROSINE PHOSPHATASE WEDGE DOMAIN PEPTIDE DIMER FOR NERVOUS SYSTEM REPAIR

Chromatogram of Purified Compound 8 (TAT-Cys-PTP α Dimer Acetate Salt)

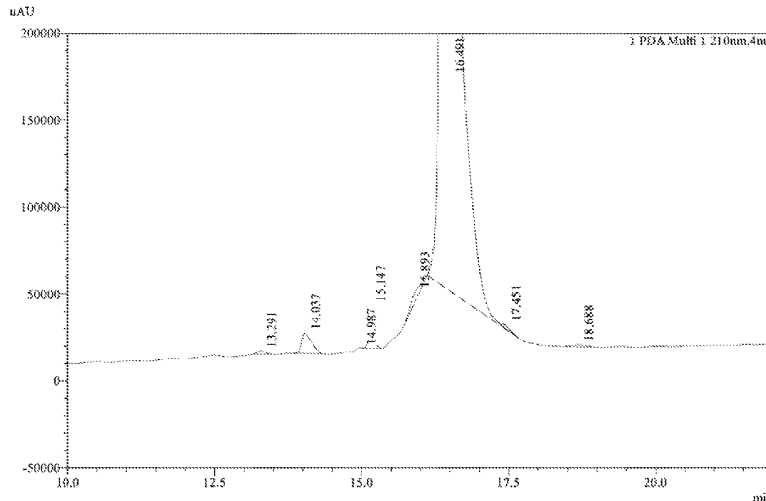


FIG. 1

(57) Abstract: The disclosure relates to compositions and methods for nervous system repair. The compositions comprise a peptide that is a dimer, which comprises a first monomer covalently cross-linked with a second monomer, each monomer comprising a domain comprising an amino acid sequence derived from a cytoplasmic wedge domain of a receptor-type protein-tyrosine phosphatase (PTPR). The disclosure also relates to methods and compositions for treating diseases, disorders, and/or conditions associated with inhibition of nervous system repair by chondroitin sulfate proteoglycans (CSPG) or with suppressive effects of LAR family phosphatases, such as PTPRD, PTPRF, and PTPRS on neuro repair.

[Continued on next page]

WO 2024/209376 A1

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*