

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
15 August 2024 (15.08.2024)



(10) International Publication Number
WO 2024/167878 A1

(51) International Patent Classification:

A61K 31/198 (2006.01) A61K 45/06 (2006.01)
A61K 31/65 (2006.01) A61P 25/16 (2006.01)

(21) International Application Number:

PCT/US2024/014540

(22) International Filing Date:

06 February 2024 (06.02.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/483,397 06 February 2023 (06.02.2023) US

(71) Applicant: **BIOHAVEN THERAPEUTICS LTD.**
[US/GB]; Ritter House, P.O. BOX 173, Road Town, Torto-
la, VG1110 (VG).

(72) Inventor: **CORIC, Vladimir**; Biohaven Pharmaceuticals,
Inc., 215 Church Street, New Haven, Connecticut 06510
(US).

(74) Agent: **REMILLARD, Jane E.**; Nelson Mullins Riley
& Scarborough LLP, One Financial Center, Suite 3500,
Boston, MA 02111 (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,
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).

(54) Title: TREATMENT OF NEURODEGENERATIVE DISORDERS WITH DOXYCYCLINE ALONE OR IN COMBINATION
WITH LEVODOPA

(57) Abstract: Provided herein are methods of treating a neurodegenerative disorder (e.g., Parkinson's Disease) or a symptom thereof
in a patient, by administering to the patient doxycycline (or a pharmaceutically acceptable salt thereof) either alone or in combination
with other therapeutic agents (e.g., levodopa).



WO 2024/167878 A1