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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
18 September 2025 (18.09.2025)

WIPO | PCT

(10) International Publication Number
WO 2025/193592 A2

(51) International Patent Classification:
Not classified

(21) International Application Number:
PCT/US2025/019145

(22) International Filing Date:
10 March 2025 (10.03.2025)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

63/563,878	11 March 2024 (11.03.2024)	US
63/633,236	12 April 2024 (12.04.2024)	US
63/702,825	03 October 2024 (03.10.2024)	US

(71) Applicant: **SEAWOLF THERAPEUTICS, INC.** [US/US]; 9880 Campus Point Drive, Suite 210, San Diego, California 92121 (US).

(72) Inventors: **ALBIN, Tyler**; 161 Mangano Circle, Encinitas, California 92024 (US). **BURKE, Rob**; 3474 Paseo Ancho, Carlsbad, California 92009 (US). **DANSEREAU, Oliver John**; 8771 Gilman Drive, Unit #C, La Jolla, California 92037 (US). **LAMB, Brian**; 11539 Hadar Drive, San Diego, California 92126 (US). **PROIETTO, Marco**; 10530 Caminito Pollo, San Diego, California 92126 (US). **SCOTT, Niv**; 8094 Camino Huerta, San Diego, California 92122 (US).

(74) Agent: **FIELD, Bret E.**; 201 Redwood Shores Parkway, Suite 200, Redwood City, California 94065 (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, 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:
— *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*

WO 2025/193592 A2

(54) Title: ENHANCED NUCLEAR DELIVERY OF DNA AND COMPOSITIONS FOR USE IN PRACTICING THE SAME

(57) Abstract: Methods and compositions for enhancing nuclear DNA delivery are provided. Aspects of the methods include contacting a cell with a DNA to be delivered to the nucleus of the cell and an agent that modulates the activity of protein Barrier-to-Autointegration Factor (BAF) in a cell. In addition, compositions, including reagents, devices and kits thereof, that find use in practicing embodiments of the subject methods are provided.