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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
09 October 2025 (09.10.2025)

WIPO | PCT

(10) International Publication Number
WO 2025/213038 A1

(51) International Patent Classification:
A61K 35/12 (2015.01) *A61P 13/12* (2006.01)
A61K 35/545 (2015.01) *C12N 15/85* (2006.01)
A61K 38/17 (2006.01) *G01N 29/02* (2006.01)
A61M 1/14 (2006.01)

(21) International Application Number:
PCT/US2025/023181

(22) International Filing Date:
04 April 2025 (04.04.2025)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/575,429 05 April 2024 (05.04.2024) US

(72) Inventor; and
(71) Applicant: **BERGLUND, Erik** [SE/US]; 450 Washington Street, TH5, New York, NY 10013 (US).

(74) Agent: **MARTINEK, Sebastian** et al.; Jones Day, 250 Vesey Street, New York, NY 10281-1047 (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).

(54) **Title:** SYSTEMS AND METHODS FOR KIDNEY PERFUSION

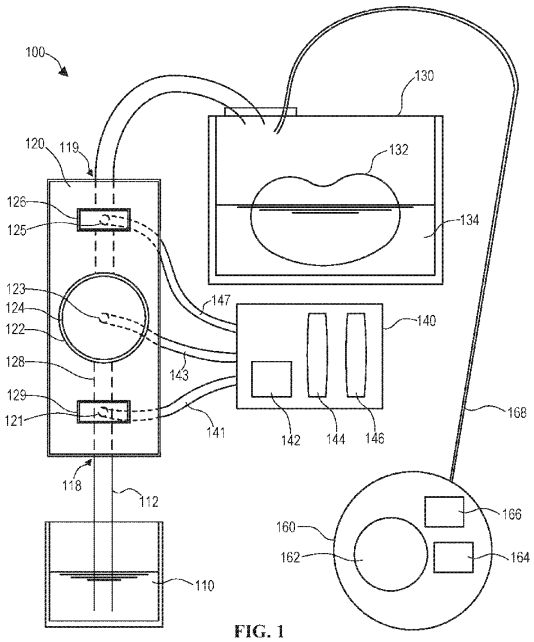


FIG. 1

(57) **Abstract:** Provided herein are perfusion systems (e.g., a perfusion system with an acoustic volume sensor) that deliver a composition comprising at least one agent that induces expression of OCT3/4, SOX2, c-MYC, KLF4, N.ANOG, and/or LIN28 in the kidney. Also provided herein are methods and compositions suitable for use with the perfusion systems.

[Continued on next page]

WO 2025/213038 A1

Published:

— *with international search report (Art. 21(3))*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*
— *with sequence listing part of description (Rule 5.2(a))*