



(51) International Patent Classification:
A61B 17/20 (2006.01)

(21) International Application Number:
PCT/US2019/060131

(22) International Filing Date:
06 November 2019 (06.11.2019)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/756,694 07 November 2018 (07.11.2018) US

(71) Applicant: **CYTRELLIS BIOSYSTEMS, INC.** [US/US];
299C Washington Street, Woburn, Massachusetts 01801 (US).

(72) Inventors: **DIMATTEO, Kristian**; c/o Cytrellis Biosystems, Inc., 299C Washington Street, Woburn, Massachusetts 01801 (US). **HIGER, Samantha**; c/o Cytrellis Biosystems, Inc., 299C Washington Street, Woburn, Massachusetts 01801 (US). **VOGEL, Anna**; c/o Cytrellis Biosystems, Inc., 299C Washington Street, Woburn, Massachusetts 01801 (US). **BRUK, Robert**; c/o Cytrellis Biosystems, Inc., 299C Washington Street, Woburn, Massachusetts 01801 (US). **CLARK, Alan**; c/o Cytrellis Biosystems, Inc., 299C Washington Street, Woburn, Massachusetts 01801 (US). **SILVER, Duncan**; c/o Cytrellis Biosystems, Inc., 299C Washington Street, Woburn, Massachusetts 01801 (US). **PANKRATOV, Michail**; c/o Cytrellis Biosystems, Inc., 299C Washington Street, Woburn, Massa-

chusetts 01801 (US). **BROCKMEIER, Oivind**; c/o Cytrellis Biosystems, Inc., 299C Washington Street, Woburn, Massachusetts 01801 (US).

(74) Agent: **AUGST, Alexander** et al.; Choate, Hall & Stewart LLP, Two International Place, Boston, Massachusetts 02110 (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, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, 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, 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 SKIN TREATMENT

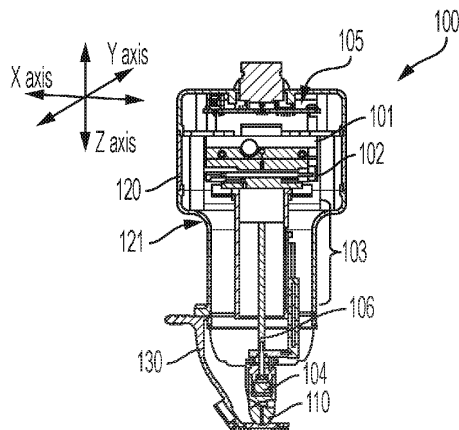


FIG. 1

(57) Abstract: Described herein are technologies, methods, and/or devices for treating skin (e.g., eliminating tissue volume, tightening skin, lifting skin, and/or reducing skin laxity) by selectively excising a plurality of microcores without thermal energy being imparted to surrounding (e.g., non-excised) tissue. The technologies, methods, and/or devices described herein satisfy an unmet need for rapid and safe treatment of skin, including, e.g., faster pretreatment preparation and post-treatment healing times compared to current surgical and thermal treatment methods.

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

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))*