

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
02 December 2021 (02.12.2021)



(10) International Publication Number
WO 2021/242948 A1

(51) International Patent Classification:
A61F 2/24 (2006.01)

(21) International Application Number:
PCT/US2021/034399

(22) International Filing Date:
27 May 2021 (27.05.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/030,811 27 May 2020 (27.05.2020) US

(71) Applicant: **EDWARDS LIFESCIENCES CORPO-
RATION** [US/US]; One Edwards Way, Irvine, CA 92614
(US).

(72) Inventors: **CARMI, Adi**; Hacarnel 8 Apt. 17, 5591617
Ganei Tikva (IL). **MANASH, Boaz**; Klil Hachoresh Street,
Number 4, 3052602 Givat Ada (IL). **GUROVICH, Niko-
lay**; Caesarea Business Park, 8 Haeshel Street, 30889 Cae-
sarea (IL). **BUKIN, Michael**; Caesarea Business Park, 8
Haeshel Street, 30889 Caesarea (IL).

(74) Agent: **GERMAN, Joel, B.** et al.; Edwards Lifesciences,
One Edwards Way, Irvine, CA 92614 (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, IT, 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,

(54) Title: DEVICES AND METHODS FOR SECURING PROSTHETIC IMPLANTS WITHIN A PATIENT'S VASCULATURE

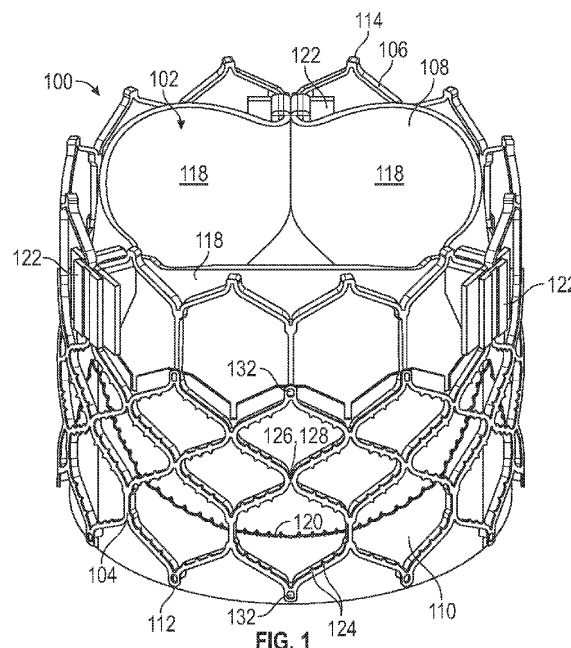


FIG. 1

(57) Abstract: A prosthetic valve assembly includes a prosthetic valve and an anchoring frame. The prosthetic valve includes a valve frame and a valve structure. The valve frame includes a plurality of struts and is expandable from a compressed configuration to an expanded configuration. The valvular structure includes leaflets. The valvular structure is disposed radially within and is coupled to the valve frame. The valvular structure is configured to allow blood flow through the prosthetic valve assembly in a first direction and to restrict blood flow through the prosthetic valve assembly in a second direction. The anchoring frame includes a plurality of struts. The anchoring frame is disposed radially outwardly from and is coupled to the valve frame. The struts of the anchoring frame comprise one or more tissue- engaging elements configured for contacting native tissue to help secure the prosthetic valve assembly at an implantation location.

[Continued on next page]

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, 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).

Published:

— with international search report (Art. 21(3))