

(51) International Patent Classification:

C12N 9/48 (2006.01) C07K 16/28 (2006.01)
C07K 16/22 (2006.01) C07K 1/16 (2006.01)

(21) International Application Number:

PCT/US2024/010503

(22) International Filing Date:

05 January 2024 (05.01.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/478,789	06 January 2023 (06.01.2023)	US
63/483,142	03 February 2023 (03.02.2023)	US
63/493,450	31 March 2023 (31.03.2023)	US
63/506,539	06 June 2023 (06.06.2023)	US
63/600,157	17 November 2023 (17.11.2023)	US

(71) Applicant: **SEISMIC THERAPEUTIC, INC.** [US/US];
238 Main Street, 5th Floor, Cambridge, Massachusetts
02142 (US).

(72) Inventors: **HIGGINSON-SCOTT, Nathan**; 238 Main
Street, 5th Floor, Cambridge, Massachusetts 02142 (US).
ROLLINS, Nathan; 238 Main Street, 5th Floor, Cam-
bridge, Massachusetts 02142 (US). **ANDERSON, Jor-**

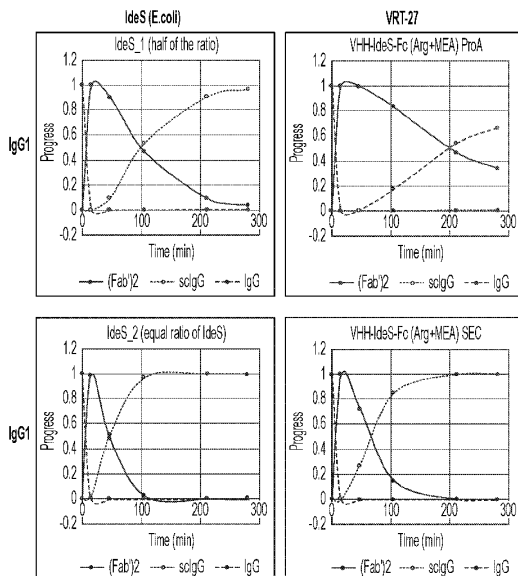
dan; 238 Main Street, 5th Floor, Cambridge, Massachu-
setts 02142 (US). **PELLERIN, Alex**; 238 Main Street, 5th
Floor, Cambridge, Massachusetts 02142 (US). **PECKN-
ER, Ryan**; 238 Main Street, 5th Floor, Cambridge, Mass-
achusetts 02142 (US). **XING, Yi**; 238 Main Street, 5th
Floor, Cambridge, Massachusetts 02142 (US). **MASCAN-
FRONI, Ivan**; 238 Main Street, 5th Floor, Cambridge,
Massachusetts 02142 (US). **OTIPOBY, Kevin, Lewis**; 238
Main Street, 5th Floor, Cambridge, Massachusetts 02142
(US). **ZHOU, Yanfeng**; 238 Main Street, 5th Floor, Cam-
bridge, Massachusetts 02142 (US).

(74) Agent: **MCEWAN, Przemyslaw, P.**; Goodwin Procter
LLP, 100 Northern Avenue, IP Docketing Dept./7th Fl.,
Boston, Massachusetts 02210 (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,

(54) Title: PROTEASE VARIANTS AND USES THEREOF

FIG. 1



(57) Abstract: Embodiments provided herein, provide for polypep-
tides and molecules comprising a polypeptide having protease activity
and a variant Fc molecule, pharmaceutical compositions comprising
the same, and methods that can be used to treat disorders, such as IgG
mediated disorders.

[Continued on next page]

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).

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))*