

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
24 November 2022 (24.11.2022)



(10) International Publication Number
WO 2022/246078 A1

(51) International Patent Classification:

C07K 16/26 (2006.01) A61K 39/395 (2006.01)
A61P 25/02 (2006.01) A61K 39/00 (2006.01)
A61P 29/00 (2006.01)

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).

(21) International Application Number:

PCT/US2022/030058

(22) International Filing Date:

19 May 2022 (19.05.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/191,496 21 May 2021 (21.05.2021) US

(71) Applicant: **ELI LILLY AND COMPANY** [US/US]; LIL-
LY CORPORATE CENTER, Indianapolis, Indiana 46285
(US).

(72) Inventors: **BEIDLER, Catherine Brautigam**; c/o ELI
LILLY AND COMPANY, P.O. Box 6288, Indianapolis, In-
diana 46206-6288 (US). **BOYLES, Jeffrey Streetman**; c/o
ELI LILLY AND COMPANY, P.O. Box 6288, Indianapo-
lis, Indiana 46206-6288 (US). **GIRARD, Daniel Scott**; c/o
ELI LILLY AND COMPANY, P.O. Box 6288, Indianapo-
lis, Indiana 46206-6288 (US). **HARLAN, Shannon Marie**;
c/o ELI LILLY AND COMPANY, P.O. Box 6288, Indi-
anapolis, Indiana 46206-6288 (US). **JOHNSON, Michael
Parvin**; c/o ELI LILLY AND COMPANY, P.O. Box 6288,
Indianapolis, Indiana 46206-6288 (US).

(74) Agent: **WOOD, Dan L.** et al.; ELI LILLY AND COM-
PANY, P.O. Box 6288, Indianapolis, Indiana 46206-6288
(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, IQ, IR, IS, IT, JM, 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, 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,

(54) Title: COMPOUNDS AND METHODS TARGETING EPIREGULIN

(57) Abstract: The present invention relates to epiregulin antibodies, compositions comprising the same, and methods of making and/or using the antibodies and/or compositions thereof for chronic pain disorders such as chronic osteoarthritis pain, or chronic diabetic peripheral neuropathy pain, or chronic low back pain.

WO 2022/246078 A1