

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
07 October 2021 (07.10.2021)



(10) International Publication Number
WO 2021/198328 A1

(51) International Patent Classification:

A61K 47/60 (2017.01) *A61K 38/22* (2006.01)
A61K 9/00 (2006.01) *A61P 11/08* (2006.01)
A61K 9/19 (2006.01) *A61P 9/08* (2006.01)

Declarations under Rule 4.17:

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

(21) International Application Number:

PCT/EP2021/058428

Published:

— with international search report (Art. 21(3))
— with sequence listing part of description (Rule 5.2(a))

(22) International Filing Date:

31 March 2021 (31.03.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

20168075.8 03 April 2020 (03.04.2020) EP

(71) Applicant: **BAYER AKTIENGESELLSCHAFT**
[DE/DE]; Kaiser-Wilhelm-Allee 1, 51373 Leverkusen
(DE).

(72) Inventors: **UNGER, Florian**; Am Ziegelhäuschen 3,
42781 Haan (DE). **SCHNEID, Stefan, Christian**; Kro-
nenstr. 39, 40217 Düsseldorf (DE). **MOTZKUS, Hans-**
Walter; Magdalenenstr. 39a, 16552 Schildow (DE).
HAASBACH, Carina; In der Sonne 2, 42111 Wuppertal
(DE).

(74) Agent: **BIP PATENTS**; Alfred-Nobel-Str. 10, 40789 Mon-
heim am Rhein NRW (DE).

(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,
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).

(54) Title: PHARMACEUTICAL FORMULATIONS POLYETHYLENE GLYCOL-BASED PRODRUGS OF ADRENOMEDULLIN AND USE

(57) Abstract: The present invention relates to novel pharmaceutical formulations, preferably for inhalation, comprising polyethylene glycol (PEG)-based prodrugs of Adrenomedullin (PEG-ADM) and the use thereof for the treatment and/or prevention of acute lung injury/acute respiratory distress syndrome (ALI/ARDS).

