

Title (en)
BISPHOSPHONATE QUINOLONE CONJUGATES AND USES THEREOF

Title (de)
BIPHOSPHONAT-CHINOLON-KONJUGATE UND VERWENDUNGEN DAVON

Title (fr)
CONJUGUÉS BISPHOSPHONATE QUINOLONE ET UTILISATIONS ASSOCIÉES

Publication
EP 3820565 A4 20220406 (EN)

Application
EP 19835178 A 20190709

Priority
• US 201862695583 P 20180709
• US 2019041063 W 20190709

Abstract (en)
[origin: WO2020014269A1] Described herein are bisphosphonate quinolone compounds, conjugates and pharmaceutical formulations thereof that can include a bisphosphonate (BP) and a quinolone, wherein the BP has an alpha substituent and the alpha substituent is a hydroxy, amino or thiol group and wherein the quinolone is directly or indirectly conjugated to the BP at the germinal carbon alpha substituent (X) of the BP. In one or more embodiments, the BP can be an alpha-OH containing BP and the quinolone can be directly or indirectly reversibly conjugated to the BP at a geminal OH of the BP. Also provided herein are methods of making and methods of using the bisphosphonate quinolone conjugates and pharmaceutical formulations thereof.

IPC 8 full level
A61K 47/54 (2017.01); **A61K 31/663** (2006.01); **A61K 47/55** (2017.01); **A61L 27/54** (2006.01); **A61P 19/10** (2006.01); **A61P 31/04** (2006.01)

CPC (source: EP)
A61K 31/663 (2013.01); **A61K 47/548** (2017.08); **A61K 47/552** (2017.08); **A61L 27/54** (2013.01); **A61P 19/10** (2018.01); **A61P 31/04** (2018.01); **A61L 2300/216** (2013.01); **A61L 2300/404** (2013.01); **A61L 2300/412** (2013.01); **A61L 2430/02** (2013.01)

Citation (search report)
• [X] US 2008287396 A1 20081120 - DELORME DANIEL [CA], et al
• [X] TANAKA K S E ET AL: "Bisphosphonated fluoroquinolone esters as osteotropic prodrugs for the prevention of osteomyelitis", BIOORGANIC, ELSEVIER, AMSTERDAM, NL, vol. 16, no. 20, 15 October 2008 (2008-10-15), pages 9217 - 9229, XP025519115, ISSN: 0968-0896, [retrieved on 20080909], DOI: 10.1016/J.BMC.2008.09.010
• See also references of WO 2020014269A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
WO 2020014269 A1 20200116; **WO 2020014269 A9 20200305**; CA 3105829 A1 20200116; CN 112672787 A 20210416; EP 3820565 A1 20210519; EP 3820565 A4 20220406; JP 2021532087 A 20211125; JP 7501960 B2 20240618

DOCDB simple family (application)
US 2019041063 W 20190709; CA 3105829 A 20190709; CN 201980058610 A 20190709; EP 19835178 A 20190709; JP 2021500846 A 20190709