

Title (en)

NANO-ENABLED IMMUNOTHERAPY IN CANCER

Title (de)

NANO-AKTIVIERTE IMMUNTHERAPIE BEI KREBSERKRANKUNGEN

Title (fr)

IMMUNOTHÉRAPIE ANTICANCÉREUSE NANO-ACTIVÉE

Publication

**EP 3624810 A4 20210217 (EN)**

Application

**EP 18803111 A 20180517**

Priority

- US 201762507996 P 20170518
- US 201862614325 P 20180105
- US 2018033265 W 20180517

Abstract (en)

[origin: WO2018213631A1] In certain embodiments a platform technology for the facilitating immune therapy in the treatment of cancer is provided. In certain embodiments nanocarriers are provided that facilitate delivery of an IDO pathway inhibitor in conjunction with an inducer of cell death (ICD-inducer). In certain embodiments the IDO inhibitor is conjugated to a component of a lipid bilayer forming a nanovesicle. In still another embodiment, methods and compositions are provided where an ICD-inducing agent (e.g., doxorubicin, oxaliplatin, etc.) and an IDO pathway inhibitor (e.g., an IDO inhibitor -prodrug) are integrated into a nanocarrier (e.g. a lipid-bilayer (LB) -coated nanoparticle), that allows systemic delivery to orthotopic pancreatic cancer site.

IPC 8 full level

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CPC (source: EP)

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**A61K 33/243** (2018.12); **A61K 33/34** (2013.01); **A61K 47/542** (2017.07); **A61K 47/544** (2017.07); **A61K 47/551** (2017.07);  
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Citation (search report)

- [E] WO 2018140826 A1 20180802 - METHODIST HOSPITAL [US]
- [E] WO 2019173391 A1 20190912 - SERDA RITA ELENA [US], et al
- [I] WO 2017023667 A1 20170209 - UNIV OF PITTSBURGH - OF THE COMMONWEALTH SYSTEM OF HIGHER EDUCATION [US]
- [A] US 2011159017 A1 20110630 - VAN DEN EYNDE BENOIT [BE], et al
- [I] JING-JING SUN ET AL: "Programmable co-delivery of the immune checkpoint inhibitor NLG919 and chemotherapeutic doxorubicin via a redox-responsive immunostimulatory polymeric prodrug carrier", ACTA PHARMACOLOGICA SINICA, vol. 38, no. 6, 8 May 2017 (2017-05-08), GB, pages 823 - 834, XP055580410, ISSN: 1671-4083, DOI: 10.1038/aps.2017.44
- [A] ANU PURI ET AL: "Lipid-Based Nanoparticles as Pharmaceutical Drug Carriers: From Concepts to Clinic", PUBMED CENTRAL (PMC) AUTHOR MANUSCRIPT - HHS PUBLIC ACCESS, 14 June 2010 (2010-06-14), pages 1 - 48, XP055580417, Retrieved from the Internet <URL:<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2885142/>> [retrieved on 20190412]
- See references of WO 2018213631A1

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

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DOCDB simple family (application)

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