Title (en)

VIRAL AND ONCOVIRAL NUCLEASE TREATMENT

Title (de)

VIRALE UND ONKOVIRALE NUKLEASEBEHANDLUNG

Title (fr)

TRAITEMENT AU MOYEN D'UNE NUCLÉASE VIRALE ET ONCOVIRALE

Publication

**EP 3420077 A1 20190102 (EN)**

Application

**EP 17757316 A 20170224**

Priority

- US 201662299792 P 20160225
- US 201662299839 P 20160225
- US 2017019390 W 20170224

Abstract (en)

[origin: WO2017147446A1] Compositions and methods for treating infection-associated cancer include the use of a nuclease that cuts nucleic acid of an oncovirus in combination with an adjunct chemo therapeutic that treats cancerous cells. For example, a Cas9 endonuclease and a guide RNA that matches a target in a viral genome without having any corresponding match in the human genome can be delivered along with an anti-apoptotic inhibitor. Embodiments treat a viral infection and use a nuclease and an inhibitor that prevents DNA repair, such as a CRISPR-associated nuclease and a small molecule that inhibits an enzyme of a repair pathway. Under guidance of a targeting sequence, the nuclease cuts viral nucleic acid without cutting the patient's genome. The cut ends of the viral nucleic acid are not repaired because the inhibitor prevents a repair mechanism.

IPC 8 full level

**C12N 9/22** (2006.01); **A61K 9/127** (2006.01); **A61P 31/12** (2006.01); **C07H 21/04** (2006.01); **C12N 15/09** (2006.01); **C12N 15/113** (2010.01); **C12N 15/12** (2006.01); **G01N 33/574** (2006.01)

CPC (source: EP)

**A61P 31/12** (2017.12); **C12N 9/22** (2013.01); **C12N 15/09** (2013.01); **C12N 15/102** (2013.01); **C12N 15/1131** (2013.01); **G01N 33/5308** (2013.01); **G01N 33/569** (2013.01); **G01N 33/574** (2013.01); C12N 2310/20 (2017.04); C12N 2320/30 (2013.01); C12N 2320/32 (2013.01); G01N 2333/922 (2013.01)

Designated contracting state (EPC)

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