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发文序号: **2021041200552760**

国际申请日: 20190725

申请人: 美国政府健康及人类服务部 中山大学

发明创造名称: 用作拓扑异构酶 IB (TOP1) 和/或酪氨酰-DNA 磷酸二酯酶 1 (TDP1) 的抑制剂的光叶
花椒酮碱衍生物

国际申请进入中国国家阶段通知书

上述国际申请, 申请人办理的进入中国国家阶段手续, 经审查, 符合专利法实施细则第 103 条和第 104 条的规定, 该国际申请已进入中国国家阶段。现将给予的国家申请号和确定的进入中国国家阶段的日期通知如下:

国家申请号: 201980062917.5

进入中国国家阶段日期: 2021 年 03 月 24 日

经核实, 国家知识产权局确认收到文件如下:

说明书附图 1 份, 每份 22 页; 说明书摘要 1 份, 每份 1 页

摘要附图 1 份, 每份 1 页; 国际申请进入中国国家阶段声明 (发明) 1 份, 每份 4 页

权利要求书 1 份, 每份 10 页; 说明书 1 份, 每份 80 页

专利代理委托书 1 份, 每份 3 页; 修改对照页 1 份, 每份 12 页

其他证明文件 1 份, 每份 1 页; 按照条约第 28 或 41 条修改的声明或说明 1 份, 每份 1 页

按照条约第 28 或 41 条修改的权利要求书 1 份, 每份 6 页。

自从收到本通知书之日起, 申请人向国家知识产权局办理各种手续时, 均应使用上述国家申请号。

审 查 员: 周丹丹

审查部门: 专利局初审及流程管理部

联系电话: 010-62088745

250302
2018.10

纸件申请, 回函请寄: 100088 北京市海淀区蓟门桥西土城路 6 号 国家知识产权局专利局受理处收
电子申请, 应当通过电子专利申请系统以电子文件形式提交相关文件。除另有规定外, 以纸件等其他形式提交的文件视为未提交。

(51) International Patent Classification:
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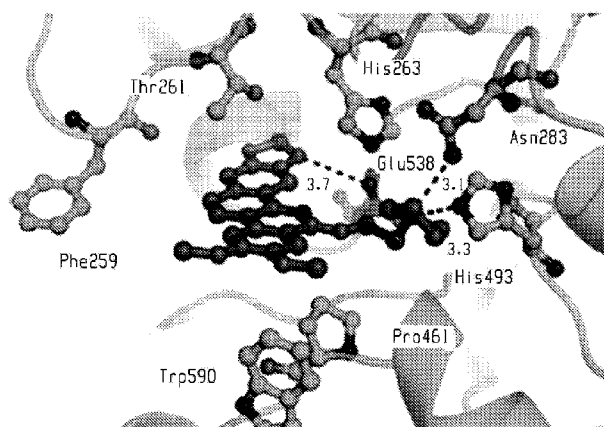
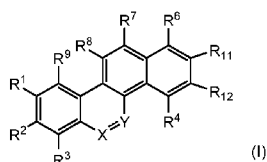
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PHOSPHODIESTERASE I (Tdp1)

Fig. 6B

(57) Abstract: Compounds and pharmaceutically acceptable salts thereof of Formula I are disclosed. Certain compounds and salts of Formula I are active as Top1 and / or Tdp1 inhibitors. The disclosure provides pharmaceutical compositions containing a compound of Formula I as the only active agent, or optionally containing one or more additional active agents. Methods of using compounds of Formula I to treat cancer are provided in this disclosure. The disclosed compounds of Formula I may be used alone to treat cancer, but may also be used in combination with another active agent, such as a Top1 inhibitor, for example, camptothecin or a camptothecin analogue.



From the INTERNATIONAL BUREAU

PCTNOTIFICATION CONCERNING
AVAILABILITY OF THE PUBLICATION
OF THE INTERNATIONAL APPLICATION

To:

GARABEDIAN, Todd E.
Cantor Colburn LLP
20 Church Street
22nd Floor
Hartford, Connecticut 06103
ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year)

30 January 2020 (30.01.2020)

Applicant's or agent's file reference

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IMPORTANT NOTICE

International application No.

PCT/US2019/043357

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25 July 2018 (25.07.2018)

Applicant

THE UNITED STATES OF AMERICA, AS REPRESENTED BY THE SECRETARY, DEPARTMENT OF
HEALTH AND HUMAN SERVICES et alThe applicant is hereby **notified** that the International Bureau:☒ has **published** the above-indicated international application on 30 January 2020 (30.01.2020)
under No. WO 2020/023700☐ has **republished** the above-indicated international application on _____
under No. WO _____For an explanation as to the reason for this republication of the international application, reference is made to INID codes
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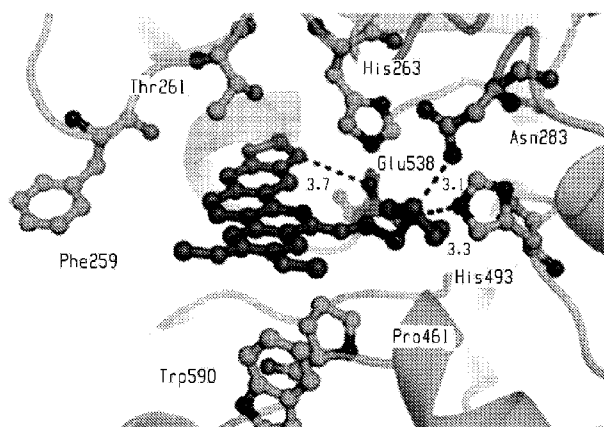
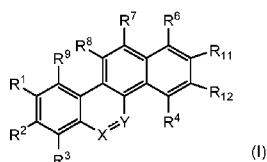
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06.05.21

Reference 1801103PP/EP	Application No./Patent No. 19750204.0 - 1110 / 3826717
Applicant/Proprietor The United States of America, as represented by The Secretary, Department of Health and Human Services, et al	

Communication of European publication number and information on the application of Article 67(3) EPC

Provisional protection under Article 67(1) and (2) EPC in the individual contracting states becomes effective when the conditions referred to in Article 67(3) EPC have been fulfilled. Provisional protection in the individual extension and validation states is governed by the national laws of the countries concerned. For more details, see Chapter III of the EPO brochure "National Law relating to the EPC" (www.epo.org/law-practice/legal-texts/national-law.html), which also contains information about the extension and validation system. Further information can also be found in the Official Journal of the European Patent Office.

Pursuant to Article 153(3) EPC the publication under Article 21 PCT of an international application for which the European Patent Office is a designated or elected Office takes the place of the publication of a European patent application.

The bibliographic data of the above-mentioned Euro-PCT application will be published on 02.06.21 in Section I.1 of the European Patent Bulletin. The European publication number is 3826717.

In all future communications to the European Patent Office, please quote the application number plus Directorate number.

For the Examining Division



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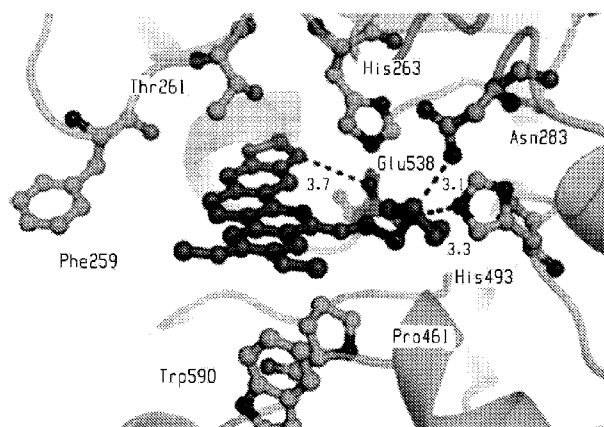
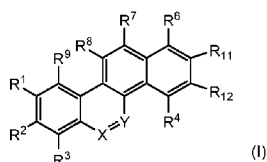
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International Application Number:	PCT/US2019/043357
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Title of Invention:	OXYNITIDINE DERIVATIVES USEFUL AS INHIBITORS OF TOPOISOMERASE IB (TOP1) AND TYROSYL-DNA PHOSPHODIESTERASE 1 (TDP1)
First Named Inventor/Applicant Name:	Lin-Kun AN
Customer Number:	89623
Filer:	Leslie-Anne Maxwell/Brenda Mason
Filer Authorized By:	Leslie-Anne Maxwell
Attorney Docket Number:	NAC0135US2
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The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

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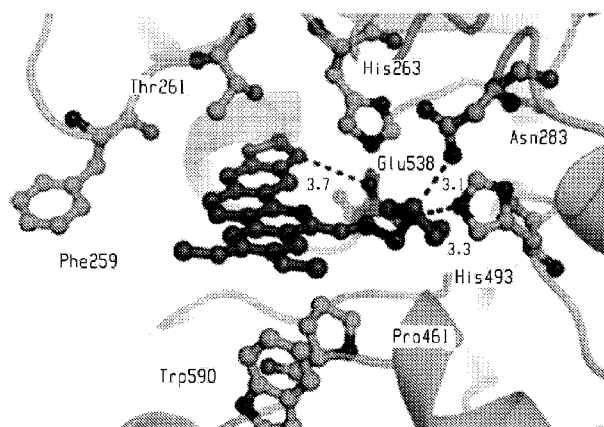
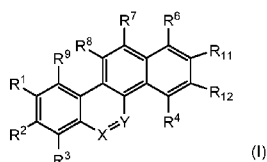
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