

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 74271-018W00	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US17/49958	International filing date (<i>day/month/year</i>) 01 September 2017 (01.09.2017)	(Earliest) Priority Date (<i>day/month/year</i>) 01 September 2016 (01.09.2016)
Applicant AUTOTELIC LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of:

the international application in the language in which it was filed.

a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b. This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6bis(a)).

c. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. **Certain claims were found unsearchable** (see Box No. II).

3. **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 5A

as suggested by the applicant.

as selected by this Authority, because the applicant failed to suggest a figure.

as selected by this Authority, because this figure better characterizes the invention.

b. none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US17/49958

Box No. 1 Nucleotide and/or amino acid sequence(s) (Continuation of item 1.c of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of a sequence listing:
- a. forming part of the international application as filed:
 in the form of an Annex C/ST.25 text file.
 on paper or in the form of an image file.
- b. furnished together with the international application under PCT Rule 13ter.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
- c. furnished subsequent to the international filing date for the purposes of international search only:
 in the form of an Annex C/ST.25 text file (Rule 13ter.1(a)).
 on paper or in the form of an image file (Rule 13ter.1(b) and Administrative Instructions, Section 713).
2. In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
3. Additional comments:

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US17/49958

A. CLASSIFICATION OF SUBJECT MATTER
 IPC - C12N 15/113; A61K 9/00, 31/7125, 31/7088, 45/06, 31/713, 48/005; C12Q 1/68 (2017.01)
 CPC - C12N 15/1136, 15/113; A61K 48/005, 9/00, 31/7088, 9/0019, 31/7125, 31/713, 45/06; C12Q 1/68

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

See Search History document

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

See Search History document

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

See Search History document

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	(SCHLINGENSIEPEN, KH et al.) Transforming growth factor-beta 2 gene silencing with trabedersen (AP 12009) in pancreatic cancer. Cancer Science. June 2011, Epub 30 March 2011, Vol. 102, No. 6; pages 1193-1200; page 1193, 1st column, 1st paragraph; page 1193, 2nd column, 2nd paragraph; page 1194, 2nd column, 5th paragraph; page 1197, 1st column, 2nd paragraph; Figure 6; DOI: 10.1111/j.1349-7006.2011.01917.x	1-21
Y	US 2015/0203919 A1 (INSERM (INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE), et al.) 23 July 2015; paragraph [0004], [0031], [0040], [0097], [0113]-[0114], [0132]	1-24, 25/23-24, 26/23-24, 27/23-24, 28/23-24, 29/23-24, 30/23-24, 31/23-24, 32/23-24, 33/32/23-24
Y	(SAGAN, D et al.) Efficacy of Combined Treatment with Trabedersen and Dacarbazine in a Xenograft Mouse Model of Malignant Melanoma. European Journal of Cancer. November 2012, Vol. 48, Supplement 6; pages 17-18; Poster 51; DOI: 10.1016/S0959-8049(12)71849-X	11
Y	(VAYRYNEN, JP et al.) The relationships between serum cytokine levels and tumor infiltrating immune cells and their clinical significance in colorectal cancer. International Journal of Cancer. 1 July 2016, Epub 7 March 2016, Vol. 139, No.1; pages 112-121; page 113, 1st column, 2nd paragraph; DOI: 10.1002/ijc.30040	12, 14, 25/23-24, 27/23-24
Y	US 2012/0301887 A1 (BANKAITIS-DAVIS, DM et al.) 29 November 2012; paragraph [0012], [0179]	19, 21

Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

24 October 2017 (24.10.2017)

Date of mailing of the international search report

08 NOV 2017

Name and mailing address of the ISA/
 Mail Stop PCT, Attn: ISA/US, Commissioner for Patents
 P.O. Box 1450, Alexandria, Virginia 22313-1450
 Facsimile No. 571-273-8300

Authorized officer

Shane Thomas

PCT Helpdesk: 571-272-4300
 PCT OSP: 571-272-7774

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US17/49958

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	(HWANG, L et al.) Abstract 3742: Treatment with trabedersen, an anti-TGF-beta 2 antisense, primed tumors to subsequent chemotherapies. AACR 107th Annual Meeting 2016. Cancer Research: Experimental and Molecular Therapeutics. July 2016; page 1, 1st paragraph; page 1, 2nd paragraph; page 1, 3rd paragraph; DOI: 10.1158/1538-7445.AM2016-3742	10, 22-24, 25/23-24, 26/23-24, 27/23-24, 28/23-24, 29/23-24, 30/23-24, 31/23-24, 32/23-24, 33/32/23-24
P, X	US 2017/0226517 A1 (AUTOTELIC LLC) 10 August 2017; entire document	1-24, 25/23-24, 26/23-24, 27/23-24, 28/23-24, 29/23-24, 30/23-24, 31/23-24, 32/23-24, 33/32/23-24
P, X	US 2017/0226518 A1 ((AUTOTELIC LLC) 10 August 2017; entire document	1-24, 25/23-24, 26/23-24, 27/23-24, 28/23-24, 29/23-24, 30/23-24, 31/23-24, 32/23-24, 33/32/23-24