

## **Third Party Observations (TPOs) filed between May 2020 and December 2020**

Note:

TPO No. refers to publisher's internal reference number.

Appl. No. provides information on the International Application No. and the Publication Number.

National phase reflects information provided on WIPO's PATENTSCOPE database as at that date of preparing this document. However, this data is dynamic and may not provide accurate information on the actual status of the patent application.

TPO No.	66			
Appl. No.	WO2019144015			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019144015">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019144015</a>			
Applicants	GILEAD SCIENCES, INC.			
Priority Data	62/619,478 19.01.2018 US			
Details	HIV: Applicant Gilead Sciences Inc. filed an application claiming metabolites of the antiviral drug bicitgravir, including its compositions and salt forms, used for the prevention and/or treatment of HIV. TPO was filed in which 8 prior art documents were used to challenge novelty and/or inventive step.			
Date of Filing of TPO	19/5/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	Australia	25.06.2020	<u>2019209594</u>	
	Canada	29.06.2020	<u>3087359</u>	
	Japan	16.07.2020	2020539242	
	China	17.07.2020	201980009140.6	Published 01.09.2020
	Republic of Korea	14.08.2020	<u>1020207023543</u>	Published 25.09.2020
	European Patent Office	19.08.2020	<u>2019703916</u>	Published 25.11.2020

TPO No.	67			
Appl. No.	WO2019148132			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019148132">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019148132</a>			
Applicants	MERCK PATENT GMBH VERTEX PHARMACEUTICALS INCORPORATED			
Priority Data	62/623,299 29.01.2018 US			
Details	HIV, HCV and TB: Applicant Merck Patent GMBH & Vertex Pharmaceuticals Inc. filed an application claiming compounds containing bicyclic heterocycles used as GCN2 inhibitors for treatment of various diseases. TPO was filed in which 4 prior art documents were used to challenge novelty and/or only inventive step.			
Date of Filing of TPO	29/5/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	Israel	15.07.2020	<u>276095</u>	
	Singapore	15.07.2020	11202006701T	
	New Zealand	21.07.2020	766364	Published 31.07.2020
	Mexico	23.07.2020	MX/a/2020/007799	Published 16.10.2020
	Canada	27.07.2020	<u>3089762</u>	
	Japan	28.07.2020	2020541383	
	European Patent Office	31.08.2020	<u>2019743925</u>	Published 09.12.2020
	Russian Federation	31.08.2020	2020128584	Published 28.02.2022
	China	16.09.2020	201980019860.0	Published 10.11.2020
	Brazil	20.10.2020	112020015328	
	Republic of Korea		<u>1020207025018</u>	Published 12.10.2020

TPO No.	68			
Appl. No.	WO2019148136			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019148136">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019148136</a>			
Applicants	MERCK PATENT GMBH VERTEX PHARMACEUTICALS INCORPORATED			
Priority Data	62/623,312 29.01.2018 US			
Details	HIV, HCV and TB: Applicant Merck Patent GMBH & Vertex Pharmaceuticals Inc. filed an application claiming imidazopyrimidine compounds used for inhibiting GCN2 kinase for various diseases. TPO was filed in which 4 prior art documents were used to challenge both novelty and/or only inventive step.			
Date of Filing of TPO	29/5/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	Singapore	17.07.2020	11202006832Y	
	Israel	19.07.2020	<u>276147</u>	
	Mexico	23.07.2020	MX/a/2020/007797	Published 16.10.2020
	New Zealand	24.07.2020	766368	Published 31.07.2020
	Canada	27.07.2020	<u>3089769</u>	
	Japan	28.07.2020	2020541375	
	European Patent Office	31.08.2020	<u>2019743802</u>	Published 09.12.2020
	Russian Federation	31.08.2020	2020128586	Published 03.03.2022
	China	16.09.2020	201980019854.5	Published 30.10.2020
	Brazil	20.10.2020	112020015396	
	Republic of Korea		<u>1020207025021</u>	Published 07.10.2020

TPO No.	69
Appl. No.	WO2019150300
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019150300">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019150300</a>
Applicants	GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED
Priority Data	62/625,410 02.02.2018 US 62/730,583 13.09.2018 US 62/740,007 02.10.2018 US
Details	HIV: Applicant GSK filed an application claiming crystalline forms of GSK2838232, an HIV maturation inhibitor. TPO was filed in which 7 prior art documents were used to challenge novelty, and/or inventive step.
Date of Filing of TPO	02/06/2020
National Phase	No National Phase Data

TPO No.	70			
Appl. No.	WO2019154634			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019154634">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019154634</a>			
Applicants	SANDOZ AG			
Priority Data	18156094.7 09.02.2018 EP 18194234.3 13.09.2018 EP			
Details	HIV: Applicant Sandoz filed an application claiming crystalline forms of Bictegravir sodium. TPO was filed in which 6 prior art documents were used to challenge inventive step.			
Date of Filing of TPO	09/06/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	Canada	15.07.2020	<u>3088596</u>	
	China	07.08.2020	201980012323.3	Published 22.09.2020
	Mexico	07.08.2020	MX/a/2020/008360	Published 16.10.2020
	Eurasian Patent Organization	08.09.2020	<u>202091903</u>	Published 30.10.2020
	European Patent Office	09.09.2020	<u>2019701843</u>	Published 16.12.2020
				Granted 16.03.2022
Brazil	20.10.2020	112020015217		

TPO No.	71			
Appl. No.	WO2019161017			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019161017">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019161017</a>			
Applicants	GILEAD SCIENCES, INC			
Priority Data	62/630,955 15.02.2018 US			
Details	HIV: Applicant Gilead Inc. filed an application claiming capsid inhibitors – substituted pyridine compounds, derivatives of GS CA-1 and GS-6207, for treatment of HIV. TPO was filed in which 4 prior art documents were used to challenge both novelty and/or only inventive step.			
Date of Filing of TPO	15/06/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	Canada	23.07.2020	<u>3089590</u>	
	China	14.08.2020	201980013698.1	Published 27.10.2020
	Japan	14.08.2020	2020543506	
	Republic of Korea	10.09.2020	<u>1020207026148</u>	Published 19.10.2020
	European Patent Office	15.09.2020	<u>2019707631</u>	Published 23.12.2020

TPO No.	72			
Appl. No.	WO2019165122			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019165122">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019165122</a>			
Applicants	THE UNITED STATES OF AMERICA, AS REPRESENTED BY THE SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES			
Priority Data	62/633,517 21.02.2018 US 62/775,754 05.12.2018 US			
Details	HIV: Applicant NIH US government, Department of Health and Human Services, filed an application for a biologic drug (monoclonal antibodies) that claimed antibodies and antigen binding fragments that specifically bind to HIV-1 envelope and neutralizes the virus. TPO was filed in which 8 prior art documents were used to challenge both novelty and/or inventive step.			
Date of Filing of TPO	22/06/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	Canada	17.08.2020	<u>3091437</u>	
	United States of America	21.08.2020	16971826	Published 18.03.2021
	European Patent Office	21.09.2020	<u>2019709330</u>	Published 30.12.2020
	Russian Federation	21.09.2020	2020130795	Published 21.03.2022
	China	14.10.2020	201980025868.8	Published 20.11.2020

TPO No.	73			
Appl. No.	WO2019171285			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019171285">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019171285</a>			
Applicants	GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED ViiV HEALTHCARE COMPANY			
Priority Data	62/639,667 07.03.2018 US			
Details	HIV: Applicant GSK Intellectual Property and ViiV Healthcare Co. filed an application claiming prodrugs, specifically lipophilic fatty acid chain prodrugs of MK-8591 (EFdA), and its pharmaceutical compositions for HIV. TPO was filed in which 7 prior art documents were used to challenge novelty and/or inventive step.			
Date of Filing of TPO	07/07/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	United States of America	26.08.2020	16975732	Published 31.12.2020
	Japan	04.09.2020	2020546446	
	European Patent Office	07.10.2020	<u>2019715562</u>	Published 13.01.2021

TPO No.	74			
Appl. No.	WO2019183133			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019183133">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019183133</a>			
Applicants	EMORY UNIVERSITY			
Priority Data	62/644,982 19.03.2018 US			
Details	HIV: Applicant Emory University filed an application claiming modified forms of a known drug maraviroc, as pan-tropic (CXCR4 and CCR5) entry inhibitors. TPO was filed in which 5 prior art documents were used primarily to challenge inventive step and some to challenge both novelty and inventive step.			
Date of Filing of TPO	20/07/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	United States of America	21.09.2020	17040026	Published 21.01.2021
	European Patent Office	19.10.2020	<u>2019770481</u>	Published 27.01.2021

TPO No.	75			
Appl. No.	WO2019189331			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019189331">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019189331</a>			
Applicants	THE KITASATO INSTITUTE NATIONAL UNIVERSITY CORPORATION HOKKAIDO UNIVERSITY			
Priority Data	2018-061397 28.03.2018 JP			
Details	TB: Applicant Kitasato Institute and National University Corporation Hokkaido University filed an application claiming a cyclic heptapeptide drug K95-5901-01 though culture of Actinoplane bacteria for the treatment of TB. TPO was filed in which 3 prior art documents were used to challenge both novelty and/or only inventive step.			
Date of Filing of TPO	28/07/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	Japan	18.09.2020	2020509177	Japan

TPO No.	76
Appl. No.	WO2019190354
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019190354">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019190354</a>
Applicants	MT-MEDICALS LIMITED LIABILITY COMPANY
Priority Data	2018111277 29.03.2018 RU
Details	TB: Applicant MT Medicals Limited Liability Co., filed an application claiming substituted phenyl formamidine compounds having anti-mycobacterial activity, used for the treatment of TB. TPO was filed in which 2 prior art documents were used to challenge both novelty and/or inventive step.
Date of Filing of TPO	29/07/2020
National Phase	No National Phase Data

TPO No.	77			
Appl. No.	WO2019199756			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019199756">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019199756</a>			
Applicants	BOARD OF REGENTS OF THE UNIVERSITY OF NEBRASKA			
Priority Data	62/654,723 09.04.2018 US			
Details	HIV: Applicant Board of Regent of University of Nebraska filed an application claiming prodrugs of known non-nucleoside reverse transcriptase inhibitors (NNRTI) and its pharmaceutical compositions for extended relief profile for the treatment of HIV. TPO was filed in which 7 prior art documents were used for challenging inventive step.			
Date of Filing of TPO	10/08/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	United States of America	16.09.2020	16981325	Published 22.04.2021
	European Patent Office	09.11.2020	<u>2019785830</u>	Published 17.02.2021
	Canada	07.10.2021	<u>3132832</u>	Published 11.11.2021

TPO No.	78			
Appl. No.	WO2019200005			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019200005">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019200005</a>			
Applicants	ATEA PHARMACEUTICALS, INC			
Priority Data	62/655,697 10.04.2018 US 62/679,573 01.06.2018 US			
Details	HCV: Applicant Atea Pharmaceuticals filed an application claiming hemisulfate salt of a nucleotide compound (AT-527) to treat cirrhotic patients with Hepatitis C. TPO was filed in which 8 prior art documents were used primarily to challenge inventive step and in some cases to challenge both novelty and inventive step.			
Date of Filing of TPO	10/08/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	Japan	07.10.2020	2020555058	
	Republic of Korea	05.11.2020	<u>1020207031947</u>	Published 16.12.2020
	European Patent Office	10.11.2020	<u>2019785575</u>	Published 17.02.2021
	Russian Federation	10.11.2020	2020134221	Published 11.05.2022
	China	01.12.2020	201980037059.9	Published 09.02.2021

TPO No.	79			
Appl. No.	WO2019198024			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019198024">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019198024</a>			
Applicants	VIIV HEALTHCARE UK (NO.5) LIMITED			
Priority Data	62/655,881 11.04.2018 US 62/689,995 26.06.2018 US 62/732,741 18.09.2018 US 62/750,336 25.10.2018 US			
Details	HIV: Applicant ViiV Healthcare UK filed an application claiming 4-oxo-3,4-dihydroquinazoline compounds, pharmaceutical compositions thereof as inhibitors of HIV replication. TPO was filed in which 2 prior art documents were used to challenge both novelty and/or only inventive step.			
Date of Filing of TPO	11/08/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	United States of America	28.09.2020	17042413	Published 28.01.2021
	Japan	08.10.2020	2020555190	
	European Patent Office	11.11.2020	<u>2019725404</u>	Published 17.02.2021

TPO No.	80			
Appl. No.	WO2019210282			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019210282">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019210282</a>			
Applicants	CHILDREN'S NATIONAL MEDICAL CENTER			
Priority Data	62/663,239 26.04.2018 US			
Details	TB: Applicant Children's National Medical Centre, filed an application claiming a biologic drug - immunogenic combinations comprising mycobacterial polynucleotides and polypeptides, to fragments or variants thereof, and to cells comprising such combined antigens, where the antigens are from a Mycobacterium species, including TB. TPO was filed in which 5 prior art documents were used to challenge both novelty and/or inventive step.			
Date of Filing of TPO	21/08/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	Canada	21.10.2020	<u>3098015</u>	
	Japan	23.10.2020	2020559424	
	Mexico	23.10.2020	MX/a/2020/011298	Published 25.02.2021
	United States of America	26.10.2020	17050829	Published 23.09.2021
	Australia	10.11.2020	<u>2019260805</u>	
	European Patent Office	26.11.2020	<u>2019793777</u>	Published 03.03.2021
	Republic of Korea		<u>1020207033884</u>	Published 02.02.2021

TPO No.	81			
Appl. No.	WO2019207460			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019207460">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019207460</a>			
Applicants	VIIV HEALTHCARE UK (NO.5) LIMITED			
Priority Data	62/661,780 24.04.2018 US 62/775,527 05.12.2018 US			
Details	HIV: Viiv Healthcare UK filed an application claiming prodrugs of known maturation inhibitory compounds and its pharmaceutical compositions. TPO was filed in which 4 prior art documents were used to challenge inventive step.			
Date of Filing of TPO	24/08/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	United States of America	08.10.2020	17046020	Published 11.11.2021
	Japan	22.10.2020	2020558974	
	European Patent Office	24.11.2020	<u>2019727500</u>	Published 03.03.2021

TPO No.	82
Appl. No.	WO2019210160
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019210160">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019210160</a>
Applicants	BRANDEIS UNIVERSITY UNIVERSITY OF HOUSTON SYSTEM
Priority Data	62/662,922 26.04.2018 US
Details	TB: Brandeis University and University of Houston System filed an application claiming urea and benzoxazole series of compounds for the treatment of TB. TPO was filed in which 3 prior art documents were used to challenge both novelty and/or inventive step.
Date of Filing of TPO	26/08/2020
National Phase	No National Phase Data

TPO No.	83
Appl. No.	WO2019210144
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019210144">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019210144</a>
Applicants	VANDERBILT UNIVERSITY THE JOHNS HOPKINS UNIVERSITY
Priority Data	62/663,853 27.04.2018 US
Details	HCV: Vanderbilt University and John Hopkins University filed an application for a biologic drug relating to human antibodies binding to Hepatitis C virus, and methods of use thereof. TPO was filed in which 4 prior art documents were used to challenge both novelty and/or inventive step.
Date of Filing of TPO	27/08/2020
National Phase	No National Phase Data

TPO No.	84			
Appl. No.	WO2019209667			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019209667">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019209667</a>			
Applicants	MERCK SHARP & DOHME CORP YU, Tao APGAR, James, M. WHITEHEAD, Alan ZHANG, Yonglian HU, Zhiyong SHURTLEFF, Valerie, W. MCCAULEY, John, A. RAHEEM, Izzat, T.			
Priority Data	62/663,377 27.04.2018 US 62/664,527 30.04.2018 US			
Details	HIV: Merck, Sharp and Dohme Corp. claims tricyclic heterocyclic compounds for the cure of HIV. TPO was filed in which 3 prior art documents were used to challenge both novelty and/or inventive step.			
Date of Filing of TPO	27/08/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	United States of America	19.10.2020	17048811	Published 22.04.2021
	Canada	21.10.2020	<u>3101180</u>	
	Japan	23.10.2020	2020559525	
	China	26.10.2020	201980028504.5	Published 15.12.2020
	Mexico	26.10.2020	MX/a/2020/011317	Published 08.12.2020
	Brazil	03.11.2020	112020021768	
	Republic of Korea	24.11.2020	<u>1020207033726</u>	Published 13.01.2021
	European Patent Office	27.11.2020	<u>2019793407</u>	Published 03.03.2021
	Russian Federation	27.11.2020	2020138670	Published 27.05.2022

TPO No.	85			
Appl. No.	WO2019213295			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019213295">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019213295</a>			
Applicants	RETROVIROX, INC.			
Priority Data	62/667,341 04.05.2018 US			
Details	HIV: Applicant Retrovirox filed an application claiming inhibitors of viral mediated down modulation of major histocompatibility complex Class I (MHC-I) and its pharmaceutical compositions for the treatment of HIV. TPO was filed in which 5 prior art documents were used for challenging inventive step.			
Date of Filing of TPO	01/09/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	Canada	04.11.2020	<u>3099382</u>	
	Israel	04.11.2020	<u>278489</u>	Withdrawn 09.05.2022
	Japan	04.11.2020	2021510270	Non Entry 05.04.2021
	Mexico	04.11.2020	MX/a/2020/011800	
	Singapore	04.11.2020	11202010971X	
	Brazil	10.11.2020	112020022437	Non Entry 11.05.2021
	European Patent Office	04.12.2020	<u>2019795781</u>	Withdrawn 05.12.2020

TPO No.	86			
Appl. No.	WO2019217369			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019217369">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019217369</a>			
Applicants	REGULUS THERAPEUTICS INC			
Priority Data	62/668,467 08.05.2018 US			
Details	HCV: Applicant Regulus Therapeutics, Inc., filed an application claiming compounds as (LNA-modified oligonucleotides) for treatment of Hepatitis C. TPO was filed in which 7 prior art documents were used for challenging novelty and/or inventive step.			
Date of Filing of TPO	08/09/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	United States of America	02.11.2020	17052333	Published 10.06.2021
	Japan	04.11.2020	2020561923	
	Canada	06.11.2020	<u>3099698</u>	
	European Patent Office	08.12.2020	<u>2019725507</u>	
	China	29.12.2020	201980044398.X	Published 23.02.2021

TPO No.	87			
Appl. No.	WO2019222104			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019222104">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019222104</a>			
Applicants	MACROGENICS, INC DUKE UNIVERSITY			
Priority Data	62/673,462 18.05.2018 US			
Details	HIV: Applicant Microgenics, Inc. and Duke University, filed an application for biologics, claiming gp41 -Binding Molecules that are multispecific (including bispecific diabodies (including DART® diabodies), BiTE®s, bispecific antibodies, trivalent binding molecules (including TRIDENT™ molecules), etc. TPO was filed in which 6 prior art documents were used for challenging both novelty and/or only inventive step.			
Date of Filing of TPO	18/09/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	Canada	13.11.2020	<u>3100398</u>	
	Mexico	13.11.2020	MX/a/2020/012309	Published 13.07.2021
	Singapore	16.11.2020	11202011355Q	
	United States of America	16.11.2020	17055805	Published 12.08.2021
	Japan	17.11.2020	2020564553	
	Australia	18.11.2020	<u>2019269383</u>	
	Israel	18.11.2020	<u>278832</u>	
	Brazil	01.12.2020	112020023432	
	European Patent Office	18.12.2020	<u>2019802868</u>	Published 24.03.2021
	China	18.01.2021	201980048041.9	Published 19.03.2021

TPO No.	88			
Appl. No.	WO2019230857			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019230857">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019230857</a>			
Applicants	SHIONOGI & CO., LTD.			
Priority Data	2018-104160 31.05.2018 JP			
Details	HIV: Applicant Shionogi & Co. Ltd., filed an application claiming polycyclic pyridone derivatives having HIV integrase inhibitory activity, and pharmaceutical compositions thereof. TPO was filed in which 2 prior art documents were used to challenge inventive step and both novelty and/or inventive step.			
Date of Filing of TPO	30/09/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	Japan	15.10.2020	2020522576	
	Mexico	13.11.2020	MX/a/2020/012185	Published 25.02.2021
	Peru	16.11.2020	001864-2020	Published 07.12.2020
	Singapore	17.11.2020	11202011386Q	
	United States of America	24.11.2020	17058260	Published 27.05.2021
	Canada	27.11.2020	<u>3101950</u>	
	Thailand	27.11.2020	2001006794	
	Israel	29.11.2020	<u>279050</u>	
	Brazil	08.12.2020	112020024098	
	Australia	14.12.2020	<u>2019277547</u>	
	New Zealand	14.12.2020	771022	Published 18.12.2020
	Costa Rica	22.12.2020	CR2020-000645	Published 05.02.2021
	Eurasian Patent Organization	25.12.2020	<u>202092923</u>	Published 30.04.2021
	Ukraine	28.12.2020	<u>a202008294</u>	Published 24.03.2021
	European Patent Office	11.01.2021	<u>2019812190</u>	Published 14.04.2021
China	28.01.2021	201980050400.4	Published 19.03.2021	
Republic of Korea		<u>1020207037581</u>	Published 17.02.2021	

TPO No.	89			
Appl. No.	WO2019230858			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019230858">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019230858</a>			
Applicants	SHIONOGI & CO., LTD.			
Priority Data	2018-104156 31.05.2018 JP			
Details	HIV: Shionogi & Co. Ltd., filed an application claiming polycyclic pyridone derivatives, with some minor difference in the Markush structure, claimed in their previous application, WO'857, having HIV integrase inhibitory activity, and pharmaceutical compositions thereof. TPO was filed in which 2 prior art documents were used to challenge inventive step and both novelty and inventive step.			
Date of Filing of TPO	30/09/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	Japan	15.10.2020	2020522577	
	Mexico	13.11.2020	MX/a/2020/012176	Published 25.02.2021
	Peru	16.11.2020	001863-2020	Published 11.03.2021
	Singapore	17.11.2020	11202011382P	
	United States of America	24.11.2020	17058251	Published 29.04.2021
	Thailand	27.11.2020	2001006793	
	Israel	29.11.2020	<u>279051</u>	
	Canada	30.11.2020	<u>3102063</u>	
	Brazil	08.12.2020	112020024077	
	Australia	14.12.2020	<u>2019277548</u>	
	New Zealand	14.12.2020	771017	Published 18.12.2020
	Costa Rica	22.12.2020	CR2020-000644	Published 05.02.2021
	Eurasian Patent Organization	25.12.2020	<u>202092921</u>	Published 30.04.2021
	Ukraine	28.12.2020	<u>a202008303</u>	Published 24.03.2021
	European Patent Office	11.01.2021	<u>2019810498</u>	Published 14.04.2021
China	28.01.2021	201980050399.5	Published 16.03.2021	
Republic of Korea		<u>1020207037580</u>	Published 10.02.2021	

TPO No.	90			
Appl. No.	WO2019236396			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019236396">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019236396</a>			
Applicants	MERCK SHARP & DOHME CORP <i>et al.</i> ,			
Priority Data	62/680,794 05.06.2018 US			
Details	HIV: Applicant Merck Sharpe & Dohme Corporation filed an application claiming tricyclic heterocyclic compounds and methods of use for treating HIV. TPO was filed in which 4 prior art documents were used for challenging novelty and/or inventive step, or only inventive step.			
Date of Filing of TPO	05/10/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	United States of America	23.11.2020	17057875	Published 07.10.2021
	European Patent Office	11.01.2021	<u>2019814615</u>	Published 14.04.2021

TPO No.	91			
Appl. No.	WO2019241483			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019241483">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019241483</a>			
Applicants	THE SCRIPPS RESEARCH INSTITUTE			
Priority Data	62/684,229 13.06.2018 US			
Details	HIV, HCV, TB: Applicant The Scripps Research Institute., filed an application claiming biological agents for treatment of HIV, HCV & TB. The vaccines compositions of fusion proteins containing a polypeptide immunogen displayed on the surface of a self-assembling nanoparticle and a locking domain that is embedded inside the nanoparticle and linked to subunit of the self-assembling nanoparticle wherein the locking domain forms a dimer with other similar particles. TPO was filed in which 5 prior art documents were used to challenge inventive step.			
Date of Filing of TPO	13/10/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	Australia	09.12.2020	<u>2019285048</u>	
	Singapore	09.12.2020	11202012313P	
	Canada	10.12.2020	<u>3103460</u>	
	Israel	10.12.2020	<u>279351</u>	
	Japan	10.12.2020	2020568685	
	Eurasian Patent Organization	18.12.2020	<u>202092808</u>	Published 31.08.2021
	European Patent Office	13.01.2021	<u>2019818872</u>	Published 21.04.2021
	Republic of Korea	13.01.2021	<u>1020217001153</u>	Published 26.02.2021
	Mexico	18.01.2021	MX/a/2021/000721	
China	20.01.2021	201980048606.3	Published 09.03.2021	

TPO No.	92			
Appl. No.	WO2019241592			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019241592">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019241592</a>			
Applicants	NANTBIO, INC			
Priority Data	62/684,938 14.06.2018 US			
Details	HIV: Applicant Nantbio, Inc., filed an application for biologics, claiming various chimeric constructs comprising a TNF family member ligand and a TNF family member receptor, nucleic acids encoding the same, mammalian cells transfected with such nucleic acids and methods of treating cancer and viral infections thereof. TPO was filed in which at least 4 prior art documents were used to challenge inventive step.			
Date of Filing of TPO	14/10/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	Canada	26.10.2020	<u>3098498</u>	
	China	14.12.2020	201980039817.0	Published 26.03.2021
	European Patent Office	14.01.2021	<u>2019819527</u>	Published 21.04.2021
Withdrawn 08.07.2021				

TPO No.	93			
Appl. No.	WO2019239382			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019239382">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019239382</a>			
Applicants	CADILA HEALTHCARE LIMITED			
Priority Data	201821022468 15.06.2018 IN 201921007053 22.02.2019 IN			
Details	TB: Applicant Cadila Healthcare Ltd., filed an application claiming condensed azaheteroaryl compounds having antibacterial activity against tuberculosis bacteria, and pharmaceutical compositions thereof. TPO was filed in which 3 prior art documents were used to challenge inventive step and both novelty and/or inventive step.			
Date of Filing of TPO	15/10/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	United States of America	15.12.2020	17252494	Published 23.09.2021
	Republic of Korea	14.01.2021	<u>1020217001229</u>	Published 24.02.2021
	Russian Federation	15.01.2021	2020141073	Withdrawn 01.02.2022
	China	25.01.2021	201980049637.0	Published 23.03.2021

TPO No.	94
Appl. No.	WO2019243971
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019243971">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019243971</a>
Applicants	FOUNDATION FOR NEGLECTED DISEASE RESEARCH
Priority Data	201741045313 17.06.2018 IN
Details	TB: Foundation for Neglected Disease Research, filed an application claiming quinoline compounds and their use as a pharmaceutical for the treatment of bacterial diseases, including diseases caused by pathogenic mycobacteria such as Mycobacterium tuberculosis and other mycobacterium infections. TPO was filed in which at least 4 prior art documents were used to challenge inventive step and both novelty and inventive step.
Date of Filing of TPO	19/10/2020
National Phase	No National Phase Data

TPO No.	95			
Appl. No.	WO2019243315			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019243315">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019243315</a>			
Applicants	HEPAREGENIX GMBH			
Priority Data	18179035.3 21.06.2018 EP			
Details	HCV: Heparegenix GMBH, filed an application that claims tricyclic protein kinase inhibitors which selectively inhibit mitogen-activated protein kinase kinase 4 (MKK4) over protein kinases JNK1 and MKK7. TPO was filed in which 4 prior art documents were used to challenge inventive step.			
Date of Filing of TPO	21/10/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	United States of America	18.12.2020	17254071	Published 26.08.2021
	European Patent Office	21.01.2021	<u>2019730377</u>	Published 28.04.2021

TPO No.	96			
Appl. No.	WO2020016243			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020016243">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020016243</a>			
Applicants	HEPAREGENIX GMBH			
Priority Data	18183712.1 16.07.2018 EP			
Details	HCV: Applicant Hepargenix GMBH, filed an application bicyclic protein kinase inhibitors which selectively inhibit mitogen-activated protein kinase kinase 4 (MKK4) over protein kinases JNK1 and MKK7. TPO was filed in which 7 prior art documents were used for challenging novelty and/or inventive step or only inventive step.			
Date of Filing of TPO	09/11/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	Australia	16.12.2020	<u>2019303986</u>	
	New Zealand	16.12.2020	771220	Published 18.12.2020
	Canada	17.12.2020	<u>3104246</u>	Published 23.01.2020
	Mexico	17.12.2020	MX/a/2020/014102	Published 17.06.2021
	Israel	21.12.2020	<u>279641</u>	
	Brazil	29.12.2020	112020026003	
	Singapore	08.01.2021	11202012732U	
	Japan	12.01.2021	2021501023	
	United States of America	14.01.2021	17260519	
	China	15.01.2021	201980047654.0	Published 26.02.2021
	European Patent Office	16.02.2021	<u>2019742336</u>	Published 26.05.2021
	Russian Federation	16.02.2021	2020142047	
	Republic of Korea		<u>1020207036713</u>	Published 31.03.2021

TPO No.	97			
Appl. No.	WO2020018352			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020018352">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020018352</a>			
Applicants	MERCK SHARP & DOHME CORP HAZUDA, Daria Jean LAI, Ming-Tain			
Priority Data	62/699,047 17.07.2018 US			
Details	HIV: Applicant Merck, Sharp and Dohme Corporation, filed an application for a method for reducing the risk for development of anti -viral treatment resistance due to an HIV mutation in a human subject infected with HIV, comprising administering EFdA (NRTI) in combination with one or more additional HIV antiviral drugs, especially Doravirine (NNRTI). TPO was filed in which 7 prior art documents were used, 6 of which were used to challenge inventive step and one for novelty.			
Date of Filing of TPO	17/11/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	United States of America	07.01.2021	17258649	Published 16.09.2021
	European Patent Office	17.02.2021	<u>2019837129</u>	Published 26.05.2021

TPO No.	98			
Appl. No.	WO2020018399			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020018399">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020018399</a>			
Applicants	MERCK SHARP & DOHME CORP RUIZ, Manuel De Lera RAHEEM, Izzat RUDD, Michael, T.			
Priority Data	62/700,691 19.07.2018 US			
Details	HIV: Merck, Sharp, and Dohme Corporation, filed an application for phosphonic amide prodrugs of tenofovir and their use in the inhibition of HIV reverse transcriptase. TPO was filed in which 2 prior art documents were used to challenge inventive step.			
Date of Filing of TPO	19/11/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	United States of America	15.01.2021	17260619	Published 26.08.2021
	European Patent Office	19.02.2021	<u>2019838497</u>	Published 26.05.2021

TPO No.	99
Appl. No.	WO2020188405
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020188405">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020188405</a>
Applicants	FOUNDATION FOR NEGLECTED DISEASE RESEARCH
Priority Data	201941010942 20.03.2019 IN
Details	TB: Applicant, Foundation for Neglected Diseases Research, filed an application claiming benzimidazole derivatives as DprE1 inhibitors for the treatment of TB. TPO was filed in which 3 prior art documents were used to challenge inventive step and both novelty and/or inventive step.
Date of Filing of TPO	23/11/2020
National Phase	No National Phase Data

TPO No.	100			
Appl. No.	WO2020021468			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020021468">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020021468</a>			
Applicants	CADILA HEALTHCARE LIMITED			
Priority Data	201821027940 25.07.2018 IN			
Details	TB: Cadila Healthcare Limited, filed an application claiming substituted oxazolidinone compounds having antibacterial activity against mycobacterium tuberculosis, and pharmaceutical compositions thereof. TPO was filed in which 2 prior art documents were used to challenge both novelty and inventive step.			
Date of Filing of TPO	25/11/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	United States of America	22.01.2021	17262278	Published 02.09.2021
	China	25.01.2021	201980049561.1	Published 23.03.2021
	Russian Federation	25.02.2021	2021104515	
	Republic of Korea		<u>1020217005725</u>	Published 07.04.2021

TPO No.	101			
Appl. No.	WO2020023827			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020023827">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020023827</a>			
Applicants	INTERNATIONAL AIDS VACCINE INITIATIVE THE SCRIPPS RESEARCH INSTITUTE			
Priority Data	62/711,312 27.07.2018 US 62/816,721 11.03.2019 US			
Details	HIV: International AIDS Vaccine Initiative and The Scripps Research Institute, filed a biologic application that claims biological agents for the treatment of HIV infections via 112 claims. The claimed agents were enhanced engineered anti-HIV Env antibodies that were derived from the PGT-121 parent antibody. TPO was filed in which 6 prior art documents were used in 5 notes to challenge novelty and/or inventive step.			
Date of Filing of TPO	27/11/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	United States of America	26.01.2021	17263490	Published 23.09.2021
	European Patent Office	01.03.2021	<u>2019840290</u>	Published 09.06.2021

TPO No.	102			
Appl. No.	WO2020028272			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020028272">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020028272</a>			
Applicants	GILEAD SCIENCES, INC.			
Priority Data	62/711,768 30.07.2018 US			
Details	HIV: Gilead Sciences Inc., filed an application that claims prodrugs of previously disclosed protease inhibitors - atazanavir analogues for the treatment of HIV (disclosed in application in which TPO#16 was filed). TPO was filed in which 5 prior art document were used, to challenge novelty and inventive step.			
Date of Filing of TPO	30/11/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	Canada	08.12.2020	<u>3103157</u>	Published 06.02.2020
	Australia	05.01.2021	<u>2019314282</u>	
	Japan	28.01.2021	2021504759	
	China	29.01.2021	201980050838.2	Published 19.03.2021
	European Patent Office	01.03.2021	<u>2019752359</u>	Published 09.06.2021
	Republic of Korea		<u>1020217005603</u>	Published 07.04.2021

TPO No.	103			
Appl. No.	WO2020033366			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020033366">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020033366</a>			
Applicants	NANTBIO, INC.			
Priority Data	62/716,292 08.08.2018 US			
Details	TB biologic: Applicant Nantbio Inc., filed an application for biological agents for the treatment of tuberculosis, by using genetically modified T cells that express at least a portion of a CD 1b restricted T cell receptor in immunotherapy. TPO was filed in which 6 prior art documents were used in 3 notes for challenging inventive step.			
Date of Filing of TPO	08/12/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	China	08.02.2021	201980053567.6	Published 14.05.2021
	European Patent Office	09.03.2021	<u>2019847254</u>	Published 16.06.2021

TPO No.	104			
Appl. No.	WO2020031112			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020031112">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020031112</a>			
Applicants	VIIV HEALTHCARE UK (NO.5) LIMITED			
Priority Data	62/716,488 09.08.2018 US 62/732,758 18.09.2018 US			
Details	HIV: Applicant ViiV Healthcare UK Ltd., filed an application for capsid assembly HIV inhibitors, pharmaceutical compositions, and methods for using these compounds for the treatment of HIV. TPO was filed in which 1 prior art document was used to challenge inventive step.			
Date of Filing of TPO	09/12/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	United States of America	26.01.2021	17263272	Published 15.07.2021
	Canada	03.02.2021	<u>3108633</u>	Published 13.02.2020
	Japan	08.02.2021	2021506634	
	Brazil	09.02.2021	112021001617	
	European Patent Office	09.03.2021	<u>2019779123</u>	Published 16.06.2021
	China	09.04.2021	201980066843.2	Published 11.05.2021

TPO No.	105			
Appl. No.	WO2020029903			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020029903">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020029903</a>			
Applicants	SUNSHINE LAKE PHARMA CO., LTD.			
Priority Data	201810908122.9 10.08.2018 CN			
Details	HCV: Sunshine Lake Pharma Co. Ltd., filed an application claiming N-(6-(3-(tert-butyl)-5-(2,4-dioxo-3,4-dihydropyrimidine-1(2H)-yl)-6-fluoro-2-methoxyphenyl)naphthalene-2-yl) methanesulfonamide salt and preparation method thereof – an analogue of dasabuvir; also relates to its composition and use. TPO was filed in which 3 prior art documents were used to challenge inventive step.			
Date of Filing of TPO	10/12/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	China	12.01.2021	201980046596.X	Published 26.02.2021

TPO No.	106			
Appl. No.	WO2020029912			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020029912">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020029912</a>			
Applicants	SUNSHINE LAKE PHARMA CO., LTD.			
Priority Data	201810908122.9 10.08.2018 CN			
Details	HCV: Applicant, Sunshine Lake Pharma Co. Ltd., filed an application claiming hexahydrate of the disodium salt of N-(6-(3-(tert-butyl)-5-(2,4-dioxo-3,4-Dihydropyrimidine-1(2H)-yl)-6-fluoro-2-methoxyphenyl)naphthalene-2-yl)methanesulfonamide – an analogue of dasabuvir. The application claimed the disodium salt crystal form C and its preparation method, composition and use for treatment of HCV. TPO was filed in which 3 prior art documents were used to challenge inventive step.			
Date of Filing of TPO	10/12/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	China	12.01.2021	201980046587.0	Published 16.03.2021

TPO No.	107			
Appl. No.	WO2020038426			
Link to Appl.	<a href="https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020038426">https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020038426</a>			
Applicants	WATERSTONE PHARMACEUTICALS(WUHAN) CO., LTD			
Priority Data	PCT/CN2018/101674 22.08.2018 CN			
Details	HCV: Waterstone Pharmaceuticals (Wuhan) Company Ltd., filed an application claiming crystalline form A of SCY-635, a known anti-HCV compound. TPO was filed in which 4 prior art documents were used to challenge novelty and inventive step. TPO for another application filed by Waterstone – WO2020037530 that made identical claims as WO'426, was ready to be filed, but the link for submitting the TPO was not available.			
Date of Filing of TPO	22/12/2020			
National Phase	<b>Office</b>	<b>Entry Date</b>	<b>National Number</b>	<b>National Status</b>
	China	22.02.2021	201980055287.9	Published 09.04.2021
	Japan	22.02.2021	2021509987	
	United States of America	22.02.2021	17270197	Published 21.10.2021
	European Patent Office	22.03.2021	<u>2019851016</u>	Published 30.06.2021