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# MedsPaL and VaxPaL

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Update on initiatives on publicly accessible databases of patent status information concerning medicines and vaccines, WIPO 33rd SCP, Geneva, December 8th 2021

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# Introduction to the Medicines Patent Pool

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MPP is a public health organization established in 2010 to accelerate **access to new HIV medicines** in LMICs

...and to facilitate the **development of new formulations needed in developing countries**


Operates through **voluntary licences** to facilitate early entry of **generic manufacturers** in LMICs

Expanded to work on **hepatitis C, Tuberculosis (2016)** other **patented essential medicines (2018)**....and **COVID-19 (2020)**

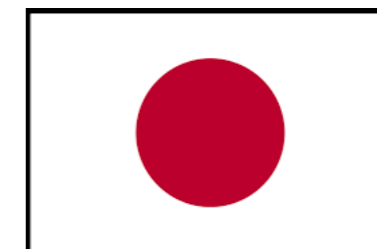


The MPP is funded by:



 Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Swiss Agency for Development  
and Cooperation SDC



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# Background on MedsPaL

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# MedsPaL

THE MEDICINES PATENTS AND LICENCES DATABASE

Most comprehensive **open-access/free** source of information on the patent and licensing status of **patented essential medicines in low- and middle-income countries.**

Patent status  
data on more than  
**13700**  
NATIONAL PATENT  
APPLICATIONS  
from over 130 LMICs

Covering  
approximately  
**140**  
PRIORITY  
MEDICINES  
(approx.  
260 formulations)



With  
information on  
**60**  
LICENCES  
and other access  
agreements  
in LMICs

And data exclusivity  
information from  
**15**  
COUNTRIES

[www.medspal.org](http://www.medspal.org)


Widely endorsed by public health organisations:



Keyword Search ?

[Add/Remove Columns](#)
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Showing result 1 out of 1

| Jurisdiction   | Product Name(s)  | Disease Area(s) | Patent Description                      | Patent Status | Patent Application Number | Expected Expiry Date (dd/mm/yyyy) | Last Updated On (dd/mm/yyyy) |
|--|--|-----------------|---|---------------|---------------------------|-----------------------------------|------------------------------|
|  Ukraine | Dolutegravir 50 mg <span style="border: 1px solid gray; padding: 2px;">In EML</span> | HIV             | Dolutegravir and Cabotegravir compounds | Term extended | UAA200711345              | 28/04/2031                        | 20/10/2020                   |

Data Exclusivity:  
Test data exclusivity until 29/12/2019

### Data exclusivity

### Patent/Patent application information

Licence(s) and Other Agreement(s):  
Bilateral Licence on Dolutegravir (DTG) and DTG/ABC combinations  
MPP licence on adult formulations of dolutegravir (DTG) and DTG/ABC combinations  
MPP licence on paediatric formulations of dolutegravir (DTG)

### Licence information

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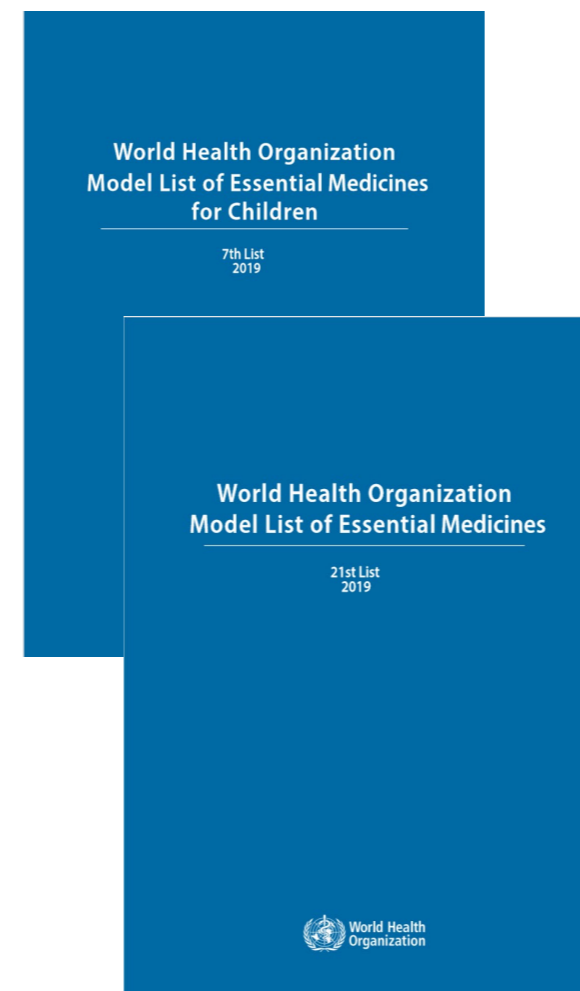


# Which products are included today?

Patented medicines for the treatment of HIV, hepatitis C and tuberculosis that are (or were) included in WHO treatment guidelines

Patented medicines on WHO Essential Medicines list (EML)

COVID-19



**NEW!**  
Patented  
COVID-19  
therapeutic  
candidates



# MedsPaL

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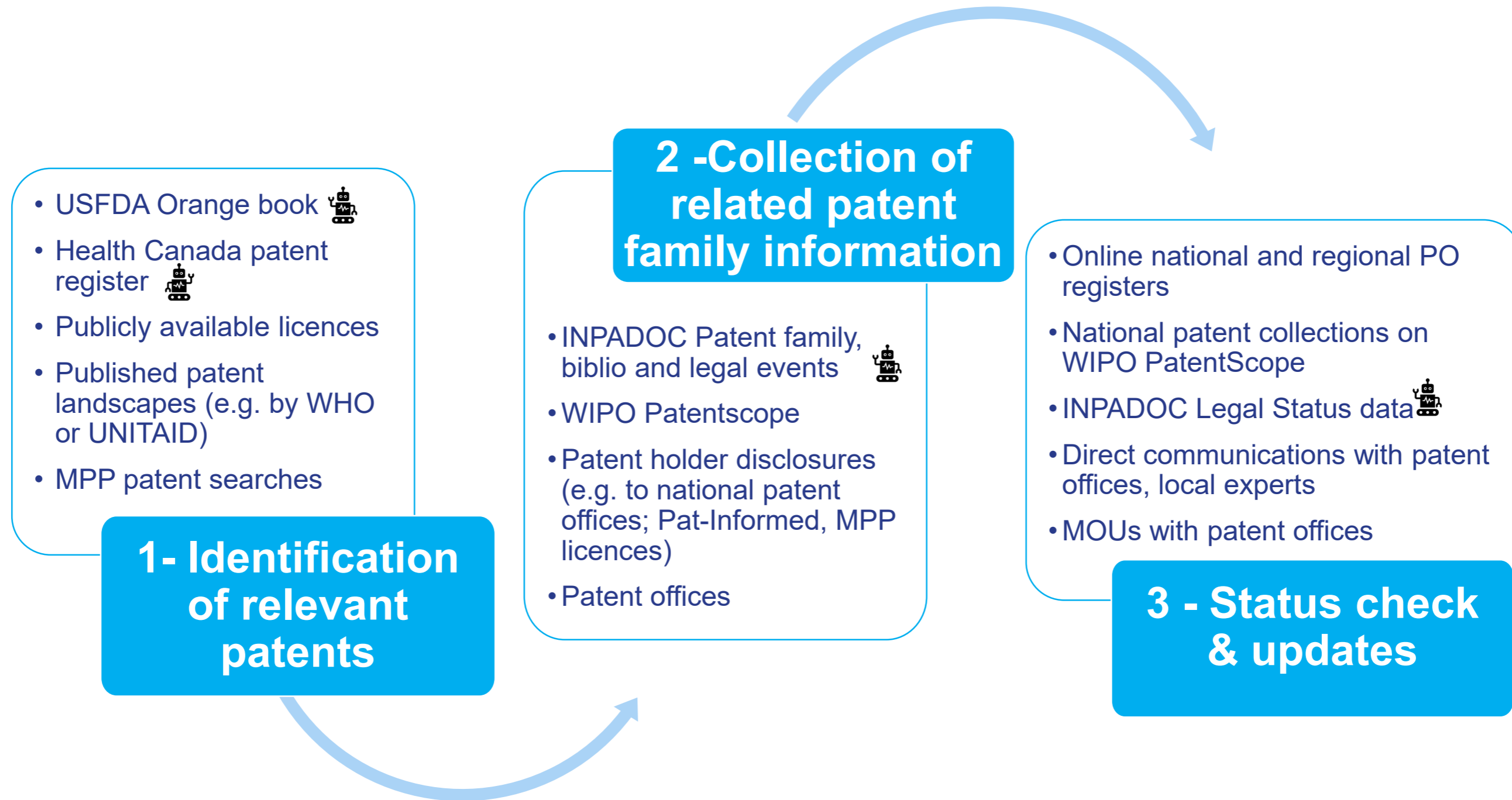
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COUNTRIES

[www.medspal.org](http://www.medspal.org)

Widely endorsed by public health organisations:





 Automated processes

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## Latest developments/Updates

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# MedsPaL

THE MEDICINES PATENTS AND LICENCES DATABASE



Since  
October  
2019

**+5700**

**+40**  
(approx.  
60 formulations)

**+20**

| Category   | Medicine (INN or development) name   |
|--|--|
| <b>WHO EML updates</b><br><i>Biologics included in the WHO EML in 2019</i> | adalimumab and alternatives, certolizumab pegol, etanercept, golimumab and infliximab<br>nivolumab and pembrolizumab   |
| <b>Patented COVID-19 potential therapeutic candidates</b>                  | <b>Small molecules:</b> remdesivir, favipiravir, ruxolitinib, baricitinib, dapagliflozin, molnupiravir, AT-527, PF-332<br><b>Biologics:</b> tocilizumab, sarilumab, siltuximab |
| <b>HIV</b>   | Islatavir, cabotegravir/rilpivirine injectable extended release, Cabotegravir tablet, lenacapavir, GSK3640254  |
| <b>HIV Paediatric formulations</b>   | abacavir/lamivudine/lopinavir/ritonavir and abacavir/lamivudine/dolutegravir.  |
| <b>Tuberculosis</b><br><i>New candidates in the development pipeline</i>   | OPC-167832, telacebec (Q203), GSK3036656, delpazolid (LCB01-371) BTZ-043   |
| <b>Hepatitis C</b><br>New paediatric formulations                          | Glecaprevir/Pibrentasvir, Sofosbuvir/Velpatasvir 150/37.5 mg/pellets   |

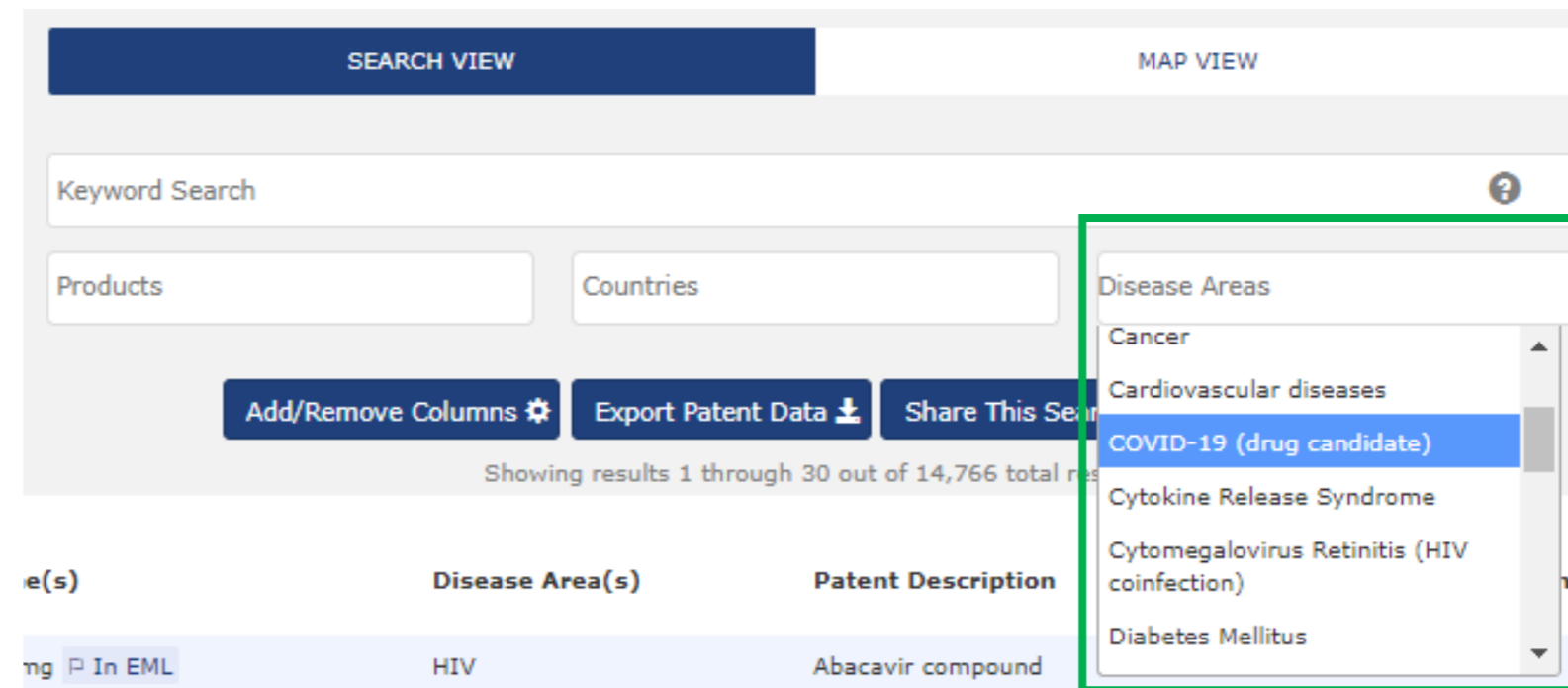
In green, products for which MPP has voluntary licences with the patent holder

- Re-structured the patent families in the database to improve accuracy of the information displayed
- MedsPaL relied on the INPADOC extended patent families and these have been split into simpler or smaller ones.
- Families with multiple PCT applications previously “grouped” together under one patent description have been split and each simple family given an appropriate description and associated with the right products.




**The table shows an “old”  
extended patent family, the  
corresponding simple families  
into which it has been split and  
if these are shown today in  
MedsPaL**

| Extended family description         | Simple family description                               | On MedsPaL   |
|-------------------------------------|---|--|
| Rilpivirine compound & combinations | Rilpivirine fumarate                                    | No   |
|                                     | Rilpivirine hydrochloride                               | Yes  |
|                                     | Rilpivirine/Tenofovir combinations with or without FTC  | Yes, but only in association with the relevant combination |
|                                     | Rilpivirine compound and analogues and their use in HIV | Yes  |

New search box in MedsPaL that allows filtering the content by “Disease Areas”



All products are associated to one or more disease .This information is displayed in a new column in the results table :

|   |       |                                  |  |   |                   |                   |            |
|---|-------|----------------------------------|--|---|-------------------|-------------------|------------|
|  | India | Sarilumab 131.6 mg/ml            | Arthritis, Rheumatoid<br>COVID-19 (drug candidate) | Sarilumab   | Granted           | IN6373/CHENP/2008 | 01/06/2027 |
|   |       | Sarilumab 175 mg/ml              |  | Sarilumab formulation containing histidine, arginine, sucrose and polysorbate | Granted           | IN6767/CHENP/2012 | 07/01/2031 |
|  | India | Siltuximab 100 mg                | COVID-19 (drug candidate)<br>Lymphatic Diseases    | Siltuximab  | Granted           | IN762/KOLNP/2004  | 26/10/2022 |
|   |       | Siltuximab 400 mg                |  |   |                   |                   |            |
|  | India | Sofosbuvir+Daclatasvir 400+60 mg | COVID-19 (drug candidate)<br>Hepatitis C (HCV)     | Sofosbuvir active metabolite  | Granted (opposed) | IN6087/DELNP/2005 | 21/04/2024 |
|   |       | Sofosbuvir/Daclatasvir 400/60 mg |  | Sofosbuvir active metabolite  | Rejected          | IN2079/DELNP/2011 |            |
|   |       |                                  |  | Daclatasvir compound  | Filed (opposed)   | IN853/DELNP/2009  | 09/08/2027 |

## User interface – Added PCT applications as a new “jurisdiction”

International applications now shown on the interface:

SEARCH VIEW
MAP VIEW

× Dolutegravir 50 mg P

× World Intellectual Property Orgar

Disease Areas

Add/Remove Columns ⚙
Export Patent Data ↓
Share This Search 🔗
Clear Search ✕

Showing result 1 out of 1

| Jurisdiction   | Product Name(s)             | Disease Area(s) | Patent Description   | Patent Status  | Patent Application Number   | Publication / Grant Number(s)   | Expected Expiry Date   | Last Updated Date  |
|--|-----------------------------|-----------------|--|--|---|---|--|--|
| <div style="border: 1px solid green; padding: 5px;">            World Intellectual Property Organization (WIPO)         </div> | Dolutegravir 50 mg P In EML | HIV             | Dolutegravir and Cabotegravir compounds<br><br>Cabotegravir prodrugs & Cabotegravir and Dolutegravir intermediates and processes<br><br>Dolutegravir salts, their crystals & process<br><br>Dolutegravir/Cabotegravir intermediates production processes & Intermediates | National Phase entered<br><br>National Phase entered<br><br>National Phase entered<br><br>National Phase entered | <div style="border: 1px solid green; padding: 5px;">           PCT/US2006016604<br/><br/>           PCT/US2009051499<br/><br/>           PCT/US2009006422<br/><br/>           PCT/US2009006461         </div> | <div style="border: 1px solid green; padding: 5px;">           WO2006116764A1<br/><br/>           WO2010011814A1<br/><br/>           WO2010068253A1<br/><br/>           WO2010068262A1         </div> | 28/04/2026<br><br>23/07/2029<br><br>08/12/2029<br><br>09/12/2029 | 04/11/2021<br><br>15/10/2021<br><br>04/11/2021<br><br>15/10/2021 |

<< 1 >>

**Particularly important for new COVID products, as patent applications are often still in international phase**



## Regional

African  
Regional IP  
Organisation



Eurasian Patent Office



European Patent Office



## National



Argentina



Brazil



Chile



Dominican Republic



Ecuador



Egypt



Costa Rica



Companies and Intellectual  
Property Commission  
a member of the dti group

South Africa



Uruguay



El Salvador

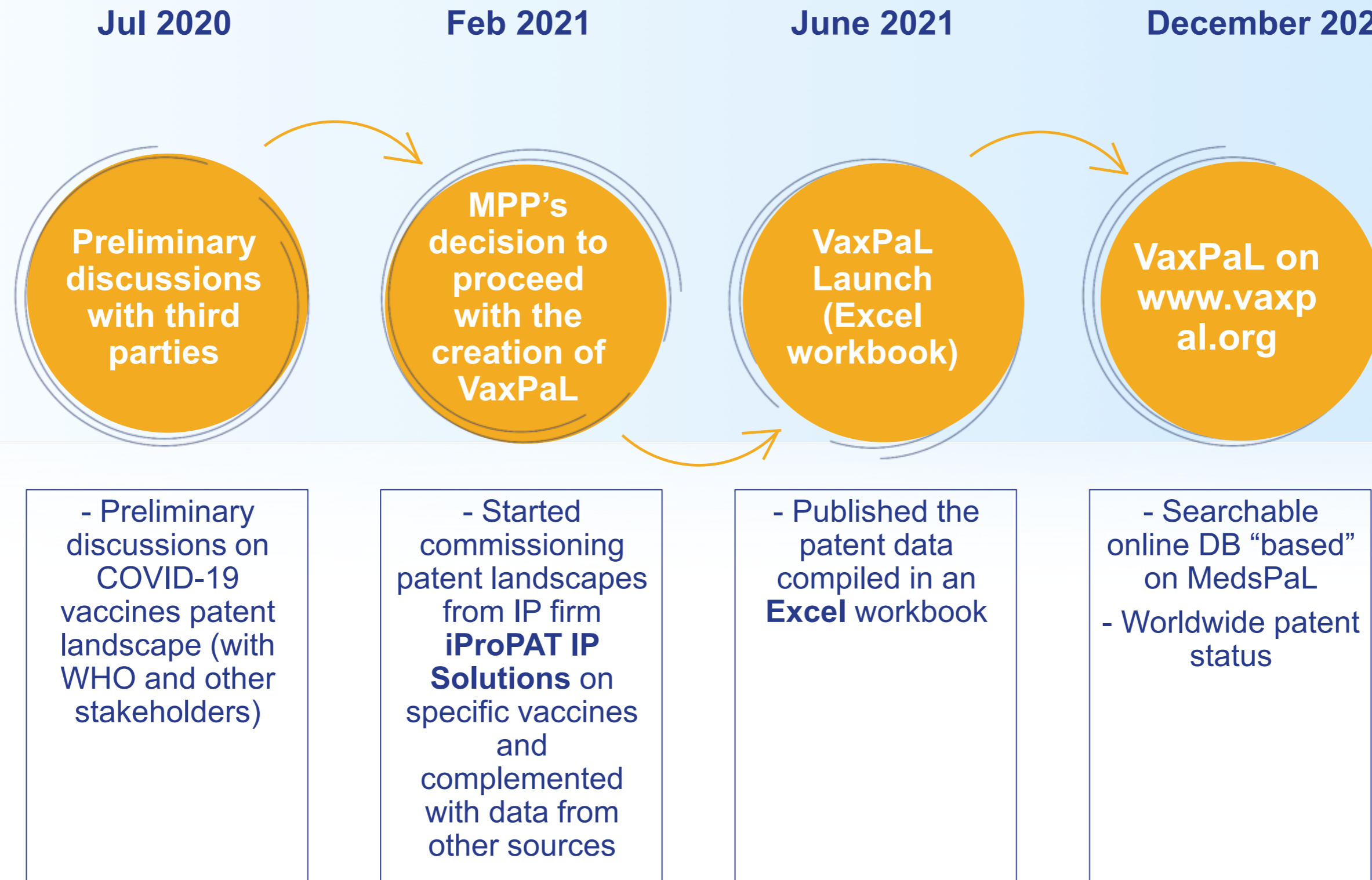


Peru

**14 patent offices have signed MoUs with the MPP committing to share data**

# VaxPal

COVID-19 VACCINES PATENT DATABASE



- The Medicines Patent Pool (MPP)'s new patents database devoted to COVID-19 vaccines
  - launched on June 6<sup>th</sup>, 2021 as an excel workbook
  - released as a fully searchable database on December 3<sup>rd</sup>, 2021
- VaxPaL was compiled for the purpose of providing greater transparency on patents relating to key COVID-19 vaccines
- Includes patent families identified as being relevant or potentially relevant, with a focus primarily (though not exclusively) on patents filed by the entities that have developed each vaccine.
- Worldwide patent status
- Users should be aware that relevant patent applications are likely to have been filed over the past year and a half but may not yet be public\* or only recently published and might not yet be included in the database

- Vaccines approved (in-use) in at least one country
- Vaccines being reviewed by WHO and progressing through the Emergency Use Listing (EUL) /Prequalification (PQ) evaluation process\*

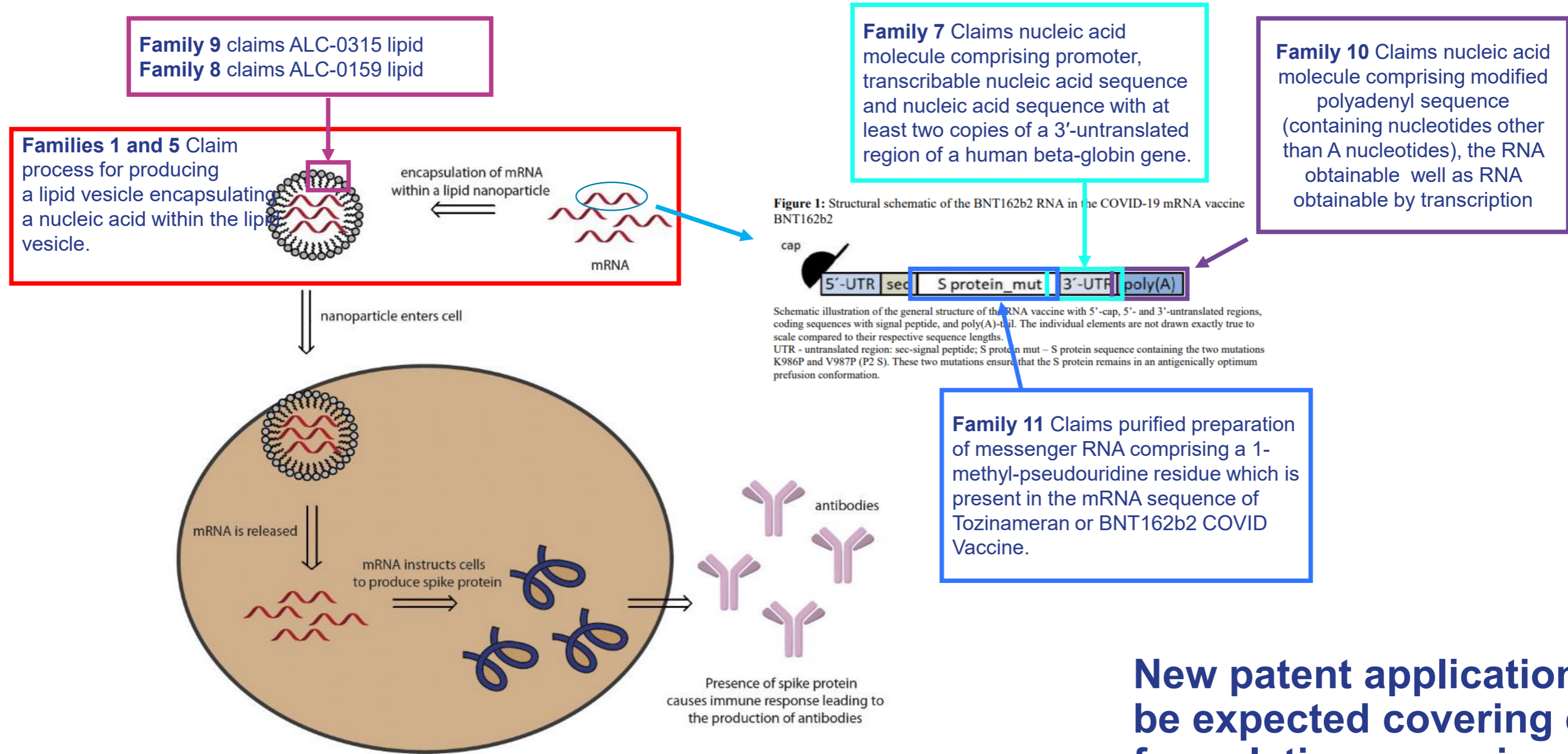
### Included in June 2021

AZD1222, AstraZeneca-Oxford  
Covaxin, Bharat/ICMR  
Zorecimeran, Curevac  
Sputnik V, Gamaleya  
Ad26.COVS-S, J&J  
mRNA-1273, Moderna  
NVX-CoV2373, Novavax  
Tozinameran, Pfizer/Biontech  
BBIBP-CorV, Sinopharm/BBIBP  
Coronavac, Sinovac

### Added in December 2021

Ad5-nCoV, CansinoBio  
CoV2 preS dTM-AS03 vaccine,  
Sanofi Pasteur  
SCB-2019, Clover  
Biopharmaceuticals

Patent families identified as being relevant or potentially relevant for Tozinameran, Pfizer/Biontech mRNA vaccine : 14 families



**New patent applications to be expected covering e.g. formulations, vaccine compositions, uses ...**

Figure 1 from BNT162b2 RNA from EMA assessment report  
Figure from <https://www.citizen.org/article/biontech-and-pfizers-bnt162-vaccine-patent-landscape/>

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# VaxPaL demo

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**medicines patent pool**

# VaxPaL

COVID-19 VACCINES PATENT DATABASE

VaxPaL provides information on the patent status of COVID-19 vaccines worldwide. VaxPaL is NOT a freedom to operate analysis and should not be interpreted as such. For more detailed and up-to-date information on a given patent application, VaxPaL users are encouraged to contact the national patent office or consult legal counsel.

*Additional information and disclaimer*

Keyword Search ?

Originators      Products      Jurisdictions

Add/Remove Columns ⚙    Export Patent Data ↓    Share This Search 🔗    Clear Search ✕

Showing results 1 through 30 out of 613 total results

Search by keywords across all fields (e.g. patent number; brand name; country, etc.)

Search by the company(ies) that has(ve) developed the vaccine

Pre-determined search by Vaccine name


Search by Countries (e.g. Chile, South Africa, Vietnam)



Keyword Search ?

[Add/Remove Columns](#)
[Export Patent Data](#)
[Share This Search](#)
[Clear Search](#)

Showing result 1 out of 1

| Jurisdiction  | Product Name(s)                  | Vaccine Type | Originator(s)                    | Patent Description  | Patent Status         | Patent Application Date | Patent Application Number | Expected Expiry Date |
|---|----------------------------------|--------------|----------------------------------|---|-----------------------|-------------------------|---------------------------|----------------------|
|  Australia | ChAdOx1 nCoV-19 (AZD1222) 0.5 ml | Viral vector | AstraZeneca<br>Oxford University | Simian adenovirus and hybrid adenoviral vectors   | Term extensions filed | 25/05/2012              | AU2012270144              | 25/05/2032           |
|   |                                  |              |                                  | Method for generating a recombinant adenovirus comprising a nucleotide sequence encoding a heterologous gene of interest for use as a vaccine | Filed                 | 30/08/2019              | AU2019332107              | 30/08/2039           |

**Patent/Patent application information**


Add/Remove Columns ✕

- Jurisdiction 🔒
- Product Name(s) 🔒
- Vaccine Type
- Originator(s)
- Patent Description 🔒
- Patent Family Identification
- Patent Status 🔒
- Patent Application Date
- Patent Application Number 🔒
- Publication / Grant Number(s)

- Expected Expiry Date
- Last Updated Date
- Priority Number(s)
- PCT Related Application
- Other PCT Related Application(s)
- Invention Title
- Patent Applicants
- Patent Status Source

Add/Remove Columns ⚙
Export Patent Data 📄
Share This Search 🔗
Clear Search ✕

Showing result 1 out of 1

| Jurisdiction  | Product Name(s)                  | Patent Description  | Patent Family Identification    | Patent Status         | Patent Application Number | Last Updated Date | Invention Title                                 | Patent Applicants                    | Patent Status Source             |
|---|----------------------------------|---|---------------------------------|-----------------------|---------------------------|-------------------|---|--------------------------------------|----------------------------------|
|  Australia | ChAdOx1 nCoV-19 (AZD1222) 0.5 ml | Simian adenovirus and hybrid adenoviral vectors   | Ipropat IPI landscape, Oct 2020 | Term extensions filed | AU2012270144              | 10/11/2021        | Simian Adenovirus And Hybrid Adenoviral Vectors | Oxford University Innovation Limited | EPO - Open Patent Services (OPS) |
|   |                                  | Method for generating a recombinant adenovirus comprising a nucleotide sequence encoding a heterologous gene of interest for use as a vaccine | Ipropat                         | Filed                 | AU2019332107              | 26/07/2021        | Methods And Compositions For Producing A Virus  | Oxford University Innovation Limited | EPO - Open Patent Services (OPS) |

### Patent Card

**Jurisdiction:** Australia

**Patent Application Number:** AU2019332107

**Patent Status:** Filed

**Patent Application Date:** 30/08/2019

**Expected Expiry Date:** 30/08/2039

**Patent Description:** Method for generating a recombinant adenovirus comprising a nucleotide sequence encoding a heterologous gene of interest for use as a vaccine

**Invention Title:** Methods And Compositions For Producing A Virus

**Patent Family Identification:** Ipropat

**Publication / Grant Number(s):** [AU2019332107A1](#) **Link to Espacenet**

**Priority Number(s):** EP2019073181  
GB201814141

**Patent Applicant(s):** Oxford University Innovation Limited

**PCT Related Application:** [WO2020043869A3](#)

**Other PCT Related Application(s):** [WO2020043869A2](#)

**Patent Status Source:** EPO - Open Patent Services (OPS)

**Last Updated Date:** 26/07/2021

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Found an error or have better data? Please email us at [vaxpal@medicinespatentpool.org](mailto:vaxpal@medicinespatentpool.org)

*MedsPaL & VaxPaL should not be considered a complete and authoritative sources of patent information **and are not meant to provide a ‘freedom-to-operate’ analysis.** They only provide a snapshot at a particular point in time, based on the information that was available to the Medicines Patent Pool*

*Interested users are advised to **contact the relevant national/regional patent office, or to consult local patent counsel,** to obtain up to date information on any given patent application identified in MedsPaL or VaxPaL*

*Users are also invited to submit information on any data that requires updating to the MPP at*

***medspal@medicinespatentpool.org***

***vaxpal@medicinespatentpool.org***

MPP's HIV, TB and hepatitis C  
activities are funded by:



**MPP'S EXPANSION INTO PATENTED  
ESSENTIAL MEDICINES IS  
UNDERTAKEN WITH FINANCIAL  
SUPPORT FROM:**



**THE MINISTRY OF FOREIGN AFFAIRS OF  
JAPAN CONTRIBUTES TO MPP'S COVID-19  
WORK, SUPPORTING RAPID ACCESS TO  
AFFORDABLE HEALTH TECHNOLOGIES TO  
END THE PANDEMIC.**





**THANK YOU**

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