

Incentives provided by Intellectual Property (IP) protections have underpinned the biopharmaceutical industry's ability to guickly respond to the COVID-19 pandemic. IP incentives remain critical for effective accelerated research, development and manufacturing of COVID-19 vaccines, therapeutics and diagnostics, and aid voluntary partnerships and technology transfer. IP protections are also critical for development of new COVID-19 medicines and for future health emergencies. R&D and manufacturing partnerships have resulted in global equitable access to COVID-19 therapeutics at breakthrough speed.

Industry-led innovation has delivered on COVID-19 therapeutics

As a result of investment in research and development, the pipeline for COVID-19 therapeutics is strong. 75% of this investment has been made at risk by the private sector, including both innovative pharmaceutical companies and generics companies. This investment is made possible by the incentives provided by the intellectual property (IP) framework.

A reliable IP framework enables industry to continue to invest into R&D to fight new variants and to address new symptoms of COVID-19 through new and novel therapeutics.

COVID-19 therapeutics candidates pipeline



(**107** discontinued 138 inactive)







A waiver of rights would remove critical important incentives for companies to continue investing at-risk in this pipeline and undermine future R&D.

> Source Airfinity, January 2024

Innovation ecosystem is at risk under a potential TRIPS waiver for COVID-19 therapeutics



Benefits of effective, flexible and voluntary licensing partnerships





IP underpins voluntary licensing agreements that are key to scaling up manufacturing and access

The IP framework has enabled production and research sites across the world. There are 237 production channels, of which 137 are intended for production and distribution for LMICs and UMICs.

Collaborations on COVID-19 therapeutics mainly involve technology transfer



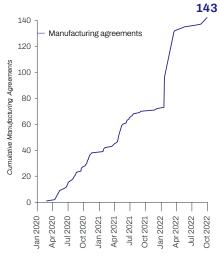
agreements, Manufacturing partners, Medicines Patent Pool sublicensees

Source: Airfinity, January 2024

Top 5 locations for generic companies involved in voluntary licensing agreements:



43 licensing agreements were signed in the first year of the pandemic, number tripled by June 2022



Source: Airfinity, January 2024

A waiver would undermine the trust and potentially the resources that make these collaborations work, and would also undermine regulatory systems and patient safety and manufacturing scale up. In the long term, it would affect geographical diversification of R&D and production.

Examples of different access pathways and voluntary partnerships entered into by innovators for COVID-19 therapeutics

- **Gilead** signed 9 bilateral, royalty free voluntary license agreements to expand access of remdesivir to 127 countries, made available to over 4 billion people. This is the largest bilateral license agreement signed by any company;
- Lilly signed voluntary royalty free license agreements with 8 generic manufacturers for baricitinib. The licensees set the price;
- Lilly announced a donations program making available courses of baricitinib free of charge to L/LMICs and made donations to multiple countries, including India;
- MSD signed bilateral voluntary license agreements with 8 generic manufacturers to produce molnupiravir covering 106 countries and to be made available to over 4 billion people;
- MSD signed an agreement with UNICEF, in December 2021, to allocate 3 million doses of molnupiravir to low- and middle-income countries in 2022, however it took 9 months for UNICEF to deliver its first shipment of 20,000 doses;

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- In addition, MSD, through the Medicines Patent Pool, signed a royalty free license agreement with 23 generic manufacturers to supply molnupiravir to 106 low- and middle-income countries;
- Pfizer entered into a license with the Medicines Patent Pool that enabled generic manufacturers to supply 95 low- and middle-income countries with nirmatrelvir/ritonavir, covering 53% of the world population. The license is provided royalty free for LICs;
- **Pfizer** signed an agreement with UNICEF for up to 4 million treatment courses of nirmatrelvir/ritonavir to 137 eligible low-and middle-income countries;
- **Pfizer** signed an agreement with the Global Fund to supply up to 6 million treatment courses of nirmatrelvir/ritonavir to 132 eligible low- and middle-income countries;
- **Shionogi** has signed a voluntary licence agreement with Medicines Patent Pool to enable qualified generic manufacturers to manufacture and supply ensitrelvir to 117 countries.

For the voluntary licensing partnerships, the price is determined by the licensees.

Quick response: voluntary partnerships entered into either before or within days of COVID-19 therapeutics approval

First COVID-19 Approval (EUA or full approval) | First partnerships: ♦ WHO recommendations **▲**US Non-US First Manufacturing Agreements (VLAs or MPP) Other 2020 2021 2022 01 May 2020 🔺 📕 12 May 2020 Remdesivir First VLAs signed with manufacturers in India, Pakistan and Egypt (Gilead) 16 Mar 2020 A 22 Oct 2020 06 Jun 2020 22 Apr 2022 Czech Republic India (EUA) U.S. (Full Approval) (EUA) 23 Dec 2021 🔺 28 Dec 2021 Molnupiravir U.S. (EUA) India (EUA) (MSD) 27 Oct 2021 27 Apr 2021 04 Nov 2021 03 Mar 2022 First VLAs announced with Indian Manufacturers U.K. (EUA) **MPP** agreement 22 Dec 2021 **U.S.** (EUA) **Nirmatrelvir** /Ritonavir 16 Nov 2021 22 Apr 2022 (Pfizer) **MPP** agreement 03 May 2021 (India (EUA) 11 Nov 2022 🔺 **Baricitinib** U.S. (Full Approval) (Lilly) 19 Nov 2020 🔺 📥 14. Jan 2022 11 May 2021 VLAs signed with Indian manufacturers U.S. (EUA) **Tocilizumab** 06 Jul 2021 (Roche) 24 Jun 2021 🔺 04 Mar 2020 16 Aug 2021 Roche will not assert patents against Tocilizumab manufacturing for COVID-19 in LMICs U.S. (EUA) China (EUA) Ensitrelvir 22 Nov 2022 Japan (EUA) fumaric acid 04 Oct 2022 (Shionogi) MPP agreement pending regulatory authorisation or approval

Source: Airfinity, December 2022

A waiver would undermine investment, undermine any surge predictions that can impact the fragile global supply chain.

Supporting global health through international trade





Call on the WTO and its Member States to focus on the real challenges to access

The IP framework has been a critical enabler for an unprecedented pace of R&D and manufacturing scale-up, through unprecedented voluntary and flexible partnerships.

The WTO and its Members should focus on action they can undertake to tackle the real barriers to access as highlighted, such as removing trade restrictions on upstream products needed to manufacture quality COVID-19 therapeutics, for timely and equitable access.

WTO Members should consider the facts and evidence as to whether a waiver on IP protections is needed and whether it would achieve its intended purpose.

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