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Mini Review

Toward an Inclusive, Equitable Approach to COVID-19-Related Intellectual Property Rights

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ABSTRACT

This article analyzes the role of Intellectual Property Rights (IPRs) in relation to the COVID-19 pandemic and the development of vaccines and treatments for COVID-19. The COVID-19 pandemic started spreading out all over the world in 2020. Pharmaceutical firms and biotech companies have been developing treatments and vaccines to confront the challenges presented by the pandemic. Wealthy countries as well as international Non-Governmental Organizations (NGOs) and Non-Profit Organizations (NPOs) have provided significant financial support for these efforts, which have begun to bear fruit. Various stakeholders hold different positions on how to deal with COVID-19-related IPRs, which have become a hot issue. This article will examine the current status of the pandemic, review the course of COVID-19-related drug and vaccine development, and then propose an inclusive, equitable approach to COVID-19-related IPRs.

Keywords: Intellectual property right; Access to medicine ; COVID-19

INTRODUCTION

The COVID-19 pandemic started spreading out globally in 2020, and many countries are currently suffering a second or third wave of viral infections. In order to confront the challenges posed by the COVID-19 pandemic, pharmaceutical companies and biotech companies have begun developing treatments and vaccines. Many national governments, NGOs, and NPOs have contributed to the cost of developing treatments and vaccines. Although these efforts have not yet yielded a cure for COVID-19, some treatments have been proven to alleviate symptoms of COVID-19 and have been approved in some countries. In addition, some large pharmaceutical companies have announced the successful development of a vaccine. Just recently several countries started giving a COVID-19 vaccine mostly for high priority people such as medical staff members

and the aged people.

Under these circumstances, COVID-19-related IPRs have become a hot issue. Although international organizations, NGOs, and NPOs alike have called for the equitable distribution of treatments and vaccines, the governments of several wealthy countries have rushed to pre-purchase vaccines for their citizens. In addition, some large pharmaceutical companies have been withholding their vaccinerelated IPRs.

This paper will first examine the current status of the COVID-19 pandemic, including the development of treatments and vaccines. It will then discuss how COVID-19-related IPRs should be dealt

with to combat COVID-19.

THE COVID-19 INFECTION

According to the World Health Organization (WHO), there were 107,838,255 confirmed global cases of COVID-19, including 2,373,398 deaths, as of Feb. 13, 2021 [1]. On that same day, the world saw 410,876 new cases of COVID-19 and 12,958 deaths from the disease [2]. Table 1 shows the rate of COVID-19 cases and deaths globally and in the four countries with the most infections (Table 1). **Table 1:** COVID-19 cases and deaths worldwide and in the USA, India, Brazil and Russia.

	Country	Total cases	Total deaths	Population	
S. No.	World	107,838,255	2,373,398		
1.	USA	27,122,583	471,635	332,209,157	
2.	India	10,892,746	155,550	1,338,419,695	
3.	Brazil	9,713,909	236,201	213,497,994	
4.	Russia	4,057,698	79,696	145,973,468	
Source: WHO Coronavirus Disease (COVID-19) Dashboard as of Feb.					

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Treatments for COVID-19

Despite the massive coordinated efforts to develop a treatment for COVID-19, so far only one drug-Remdesivir by Gilead Scienceshas won approval from the Federal Drug Administration (FDA), the American regulatory body. A couple of other drugs, such as Regeneron's Casirivimab and Imdevimab antibody cocktail and Eli

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Lilly and Company's Bamlanivimab, have received emergency use authorization from the FDA [3].

by at least one regulatory body, and six other vaccines which were authorized (early, limited or emergency use). Table shows these 10 already approved or authorized COVID-19 vaccines [4] (Table 2).

Vaccines for COVID-19

According to the New York Time's Coronavirus Vaccine Tracker, there are presently four COVID-19 vaccines which were approved

Name	Vaccine type	Primary developers	Country of origin
Comirnaty (BNT162b2)	mRNA-based vaccine	Pfizer, BioNTech; Fosun Pharma	Multinational
Moderna COVID 19 Vaccine (mRNA-1273)	mRNA-based vaccine	e Moderna, BARDA, NIAID	
CoronaVac	Inactivated vaccine	Sinovac	China
BBIBP-CorV	Inactivated vaccine	Beijing Institute of Biological Products	China
COVID-19 Vaccine AstraZeneca (AZD1222)	Adenovirus vaccine	BARDA, OWS	UK
Sputnik V	Non-replicating viral vector	Gamaleya Research Institute	Russia
EpiVacCorona	Peptide vaccine	Federal Budgetary Research Institution State Research Center of Virology and Biotechnology	Russia
Convidicea (Ad5-nCoV)	Recombinant vaccine	CanSino Biologics	China
Covaxin	Inactivated vaccine	Bharat Biotech, ICMR	India
No name announced	Inactivated vaccine	Wuhan Institute of Biological Products	s China

Note: Vaccines with yellow marker are approved ones, while vaccines with no-yellow marker are authorized vaccines for early, limited or emergency use.

In addition, there are 20 COVID-19 vaccine candidates in Phase III clinical studies, 27 in Phase II studies, and 37 in Phase I clinical studies [5,6]. Upon approval from regulatory bodies, COVID-19 inoculation started in a couple of countries around the world [7].

HOW TO DEAL WITH COVID-19-RELATED IPRS

Policies and strategies regarding COVID-19-related IPRs differ among industry, government, and NGO/NPO stakeholders.

Position of the pharmaceutical industry

The Japan Pharmaceutical Manufacturers Association (JPMA), an industry association of research-oriented pharmaceutical companies, published information on its website regarding each of its member companies' COVID-19 countermeasures. According to the website, some JPMA member companies have donated face masks and other medical devices and equipment to hospitals and/or clinics, while others have geared up their efforts to develop various drugs/treatments and vaccines. The industry has maintained that IPRs should be protected in the fight against COVID-19 [8].

Position of NGOs and NPOs

MSF (Doctors without Borders), a leading international NPO addressing "Access to Medicine" issues, released a Press Release on March 20, 2020, calling for no patents or profiteering on drugs, tests, or vaccines used for the COVID-19 pandemic. The NPO called on governments to prepare to suspend and override patents [9].

Support of countermeasures regarding COVID-19-related IPRs

Some companies have taken action to safeguard IPRs in the current

climate. Around 20 Japanese firms, including Toyota Motor Co., and Nissan Motor Co., issued "The Open COVID-19 Declaration" in May 2020. These firms jointly compiled "A Declaration of Support of Countermeasures against COVID-19-Related IPRs" (also known as the Open COVID-19 Declaration), which basically abandons the exclusive usage of COVID-related IPRs (except trademarks and trade secrets). As of Feb 14, 2021, a total of 101 companies and research institutes in Japan have signed the declaration [10].

Open COVID pledge in the USA

COVID Coalition has launched the Open COVID Pledge, seeking to accelerate the rapid development and deployment of COVID-19 related vaccines and treatments. The pledge's participants have agreed to make their patents and copyrights freely available in the fight against the COVID-19 pandemic. The founders of Open COVID Pledge include: Facebook, Amazon, Intel, IBM, Microsoft, and Hewlett-Packard [11].

DISCUSSION AND CONCLUSION

The COVID-19 pandemic has spread out rapidly, and all the five continents have been suffering. Many countries are now experiencing the so-called the Third wave. Under these circumstances, COVID-19-related IPRs have become a hot issue. The pharmaceutical industry has advocated for the protection of IPRs, not least because developing a new drug or vaccine is expensive and time-intensive. These companies hope to recover their huge investments once a drug or a vaccine is completed by retaining their IPRs. On the other hand, some NGOs and NPOs have argued that the industry should abandon COVID-19-related IPRs. Several IT companies have committed to not exercising COVID-19-related IPRs, and some national governments have launched preparations for issuing a compulsory licensing scheme that would override IPR restrictions

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for COVID-19-related findings. Some pharmaceutical firms, such as Gilead Sciences and Teijin Pharmaceutical, have decided to join the Open COVID movement. Since COVID-19 is a global problem, an inclusive and equitable approach is necessary to win the war against COVID-19. Everyone around the globe must have equal access to treatments and vaccines in order to eliminate the virus and put the world on the road to recovery. This might be ensured by introducing a patent pool or a similar scheme.

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