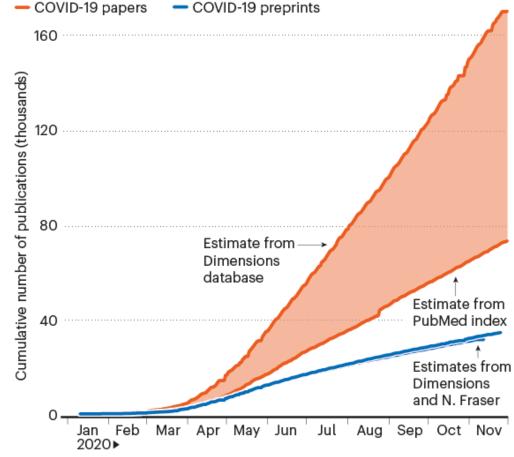


### **CORONAVIRUS CASCADE**

One estimate suggests that more than 200,000 coronavirus-related journal articles and preprints had been published by early December.



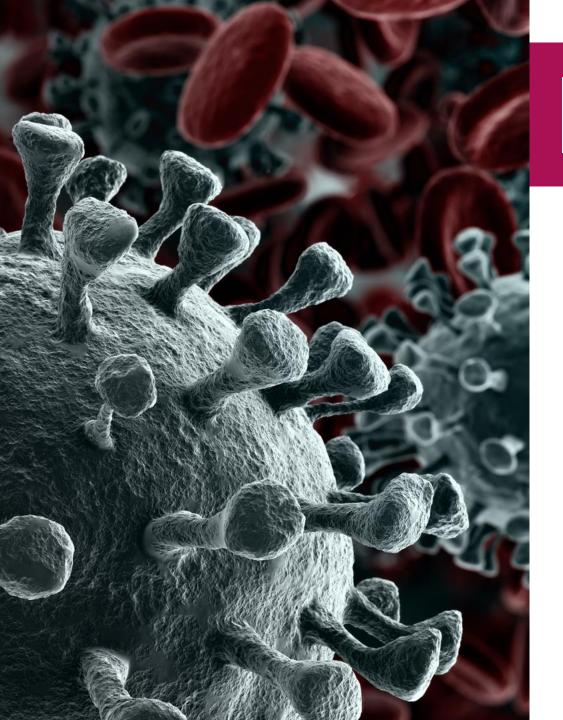
<sup>\*</sup>Estimates differ depending on search terms, database coverage, and definitions of what counts as a scientific article; some preprints were posted on multiple sites online.

**onature** 

### **COVID-19 Research Publishing**

- Around 4% of the world's research output was devoted to the coronavirus in 2020
- December 2020: More than 200,000 coronavirus-related journal articles
- April 2021: More than 374,000 publications
- Information surplus
- Various topics
- Efficient processing is required

H. Else, "How a torrent of COVID science changed research publishing - in seven charts," Nature, vol. 588, no. 7839. NLM (Medline), p. 553, 01-Dec-2020. https://reports.dimensions.ai/covid-19/



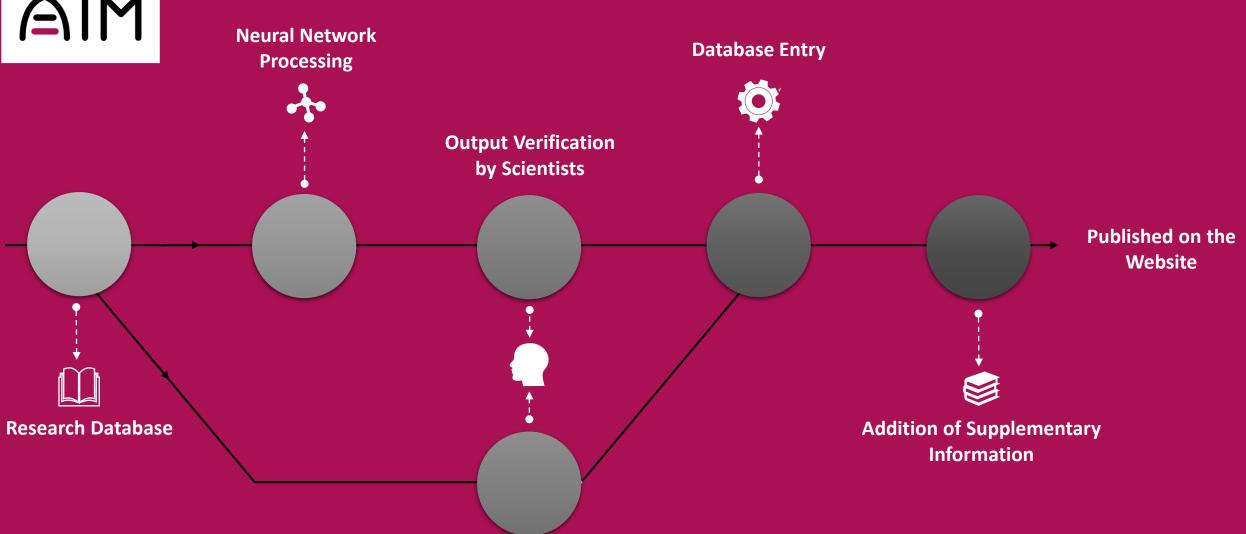
# **Up-to-date Mapping of COVID-19 Treatment and Vaccine Development**

- The goal: to provide up-to-date information on the research of COVID-19 treatment options for researchers, medical providers, as well as the general public.
- Identification of relevant research articles related to COVID-19 treatment using renowned scientific databases, in particular PubMed, PMC, bioRxiv, and data from the COVID-19 Open Research Dataset Challenge.
- Provided in a freely accessible database at <a href="https://covid19-help.org/">https://covid19-help.org/</a>
- As of April 7, 2021, there are 1,513 substances in the database of potential drugs and vaccines for COVID-19.





### **HOW IT WORKS**



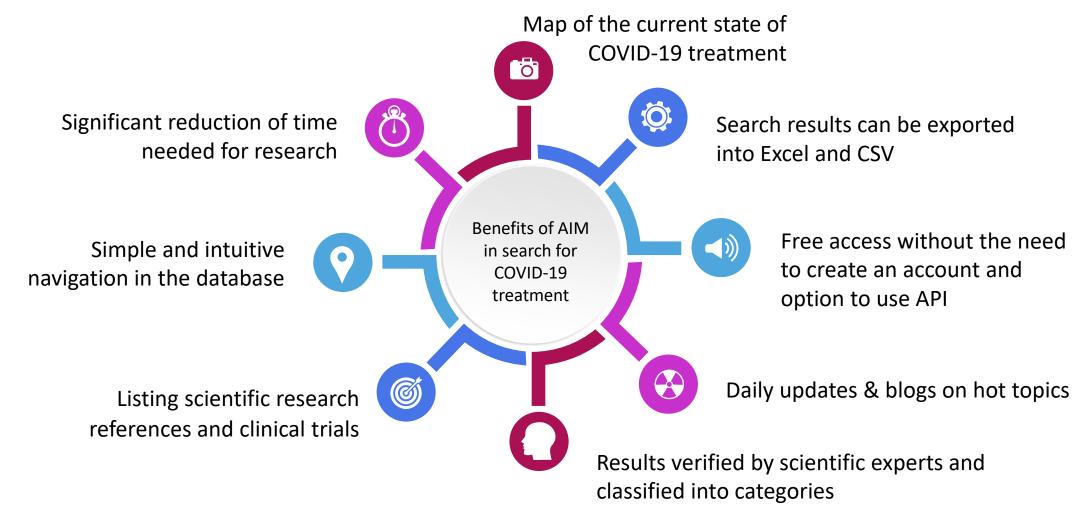
Articles Processing by Scientists



Up-to-date mapping of COVID-19 treatment and vaccine development has received funding from the EOSC Secretariat project. EOSCsecretariat.eu has received funding from the European Union's Horizon Programme call H2020-INFRAEOSC-05-2018-2019, grant Agreement number 831644.



### **Main Benefits of the Project**







Show 10 ¢ entries

### **Easy-to-use Database**

Filter the drugs by their COVID-19 status 😯 , phase of research 😯 and how they help 😯

COVID-19 is a respiratory disease caused by the SARS-CoV-2 virus. Browse the database of potential drugs for COVID-19 treatment compiled by the AIM tool.

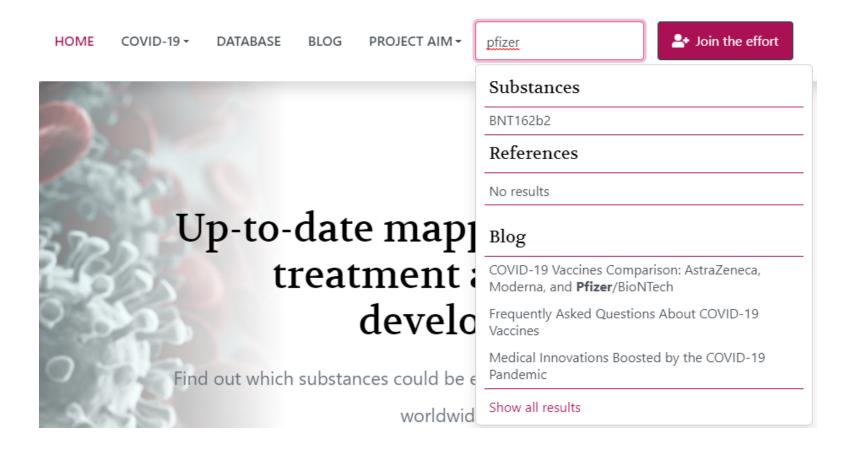
Advanced search

Silow 10 V chares						
Substance 2	COVID-19 status 😯	Phase of research 2	How it helps ?	Latest 11	Supporting 11	Contradictory 1
Select substances *	Select COVID-19 status	Select phase of research	Select how they help	<b>9</b>	0	.c.c.c.c.c
Tocilizumab	Recommended by China's NHC Guidelines	Used to treat other disease	Other treatment	Feb/06/2021	75	16
Remdesivir	Approved by FDA	Experimental	Antiviral	Feb/06/2021	55	4
Hydroxychloroquine sulfate	Potential treatment - clinical evidence	Used to treat other disease	Antiviral	Feb/18/2021	39	39
Methylprednisolone	Potential treatment - clinical evidence	Used to treat other disease	Other treatment	Feb/04/2021	31	4
Convalescent plasma	Emergency use authorization	Experimental	Antiviral	Feb/12/2021	31	5





### **Easy-to-use Database**





#### Remdesivir

Nucleoside triphosphate (NTP) analogue.













#### Supporting references

		Impact			
Link 0	Tested on 🔞	factor 🔞	Notes ®	Publication date 10	DB entry date 🔞
A Patient with X-Linked Agammaglobulinemia and COVID-19 Infection	An X-linked	6.78	Combined with convalescent	Feb/06/2021	Feb/19/2021
Treated with Remdesivir and Convalescent Plasma	agammaglobulinemia		plasma therapy. Observed clinical		
♦ small molecule ♦ mixed substance ♦ antibody ♦ case report ♦	patient.		improvement in an X-linked		
RdRpol 🍑 immunotherapy			agammaglobulinemia patient		
			requiring ICU care, who did not		
			respond to supportive care.		

#### Contradictory references

Link ()	Tested on 🔞	Impact	Notes 👨	Publication date 9	DB entry date 🔞
Repurposed antiviral drugs for COVID-19; interim WHO SOLIDARITY trial results  preprint	Patients		little or no effect on hospitalized COVID-19, as indicated by overall mortality, initiation of ventilation	Oct/15/2020	Oct/16/2020
			and duration of hospital stay		

#### Clinical trials 🔞

ID	Title	Status	Phase	Start date	Completion date
<b>○</b> NCT04391309	COVID-19 and Anti-CD14 Treatment Trial	Not yet recruiting	Phase 2	Feb/01/2021	Jan/01/2022
<b>○</b> NCT04647669	World Health Organization (WHO) COVID-19 Solidarity Trial for COVID-19 Treatments	Not yet recruiting	Phase 3	Feb/01/2021	Dec/31/2021

## **Substance Subpage**

- Key information on top
- Easy navigation
- List of references
  - Supporting references
  - Contradictory references
  - Clinical trials
- Additional information
  - General information
  - 2D structure image and SMILES formula
  - Synonyms
  - Other data



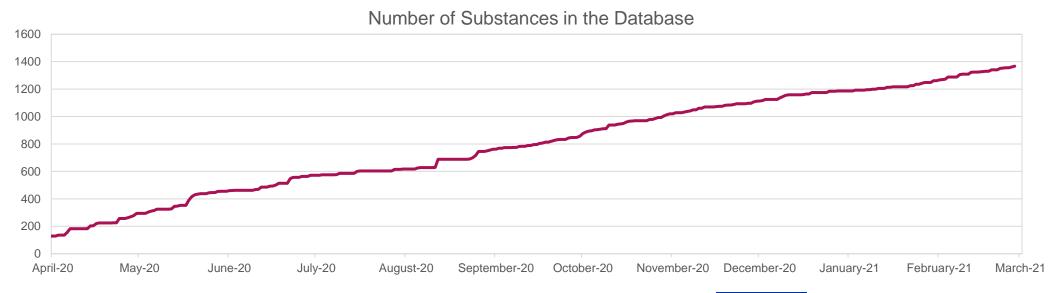
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### **Substances in the Database**

Since the launch of the website (April 2020), there has been a steady increase in the number of substances (COVID-19 treatment and vaccine candidates) in the database. As of April 7, 2021, there are **1,513** substances.









#### ER/90/2021

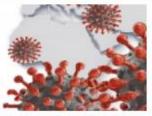
Every closel that a show hains: COVID-19 pandenic had brought a list of pain and suffering, but it also helped to speed medical innovations that are going to stay with us



The Johnson & Johnson COVID-19 Vaccine: A Currecturier?

#### pl/16/2025

Recently, a new COVO-19 vacces benduced by Johnson & Johnson has represed the market. What do we know about it. and how does it impact the vaccination plan-



Service Street, Street,

100796/2009

The exphosis form the beginning of saccountries against COVID-19 is disturbed by discovering several distinct vines variant that could excape the protection of the current partition. Sees we disjust perhaps the most working partiet. of the time. Next shoulded in South Africa.



Frequently Asked Questions About COVID-19

Compaint with the usual validite development process, we have witnessed an unprecedence effort resulting in multiple COVID-19 sections divoloped in senter a year. It is selfnatural that people have many questions, but the closer amount of information might be overwhelming. Here we assure some of the frequently asked puertions on COVID-19



What Is Behind the Fear of the COVID-19 Vaccine

Vaccination is among the biggest achievement of medicine But even though vaccines have used millions of lives, peopleare still suspicious of them. Limit look at the reasons why nomepeople are opposed to sacrines.



COVID-19 Vaccines Comparison: AstraZeneca, Moderna, and Pfirer BurNTech

At the beginning of 2021, many insulties have approved. more than one COVID-19 vaccine. What are the differences. harvest the available option? Here we carried the three made-displaced COVID-19 vaccines



On the Pfine BioNTech Viscoine

the Debesia Silvers Tarris.

Approval of several vaccines against COVID-19 developed in under a year elight; both calation and optimism. To they work, and more importantly - are they safe? Let us look at the first sacchin approved in western countries - \$1971/\$282 developed



Mink culling over SARS-CoV-2 - better safe than

The many maling of farmed make due to the surror of the novel communicat carrie as a shock to most. Was if a necessary reseasure or a further-culti-than-cum procession? Should use be wary of not only ofter people but annuals as well!



Testina People For COVID-19

It is counted to do what we case to stop, the operaid of COVID-19 With similar symptomy to other respiratory diseases and many asymptometric people, we need critishle loops to detect the John behind the pandonic. What are not potons'

### **Project Dissemination**

- Directed communication with referenced authors
- **LinkedIn** and **Facebook** (business pages created to provide project updates)
- Newsletter
- Information about the project posted to various online channels: ResearchGate, Reddit, Quora, **EOSC Liaison Platform, Facebook forums**
- Blogs on the website

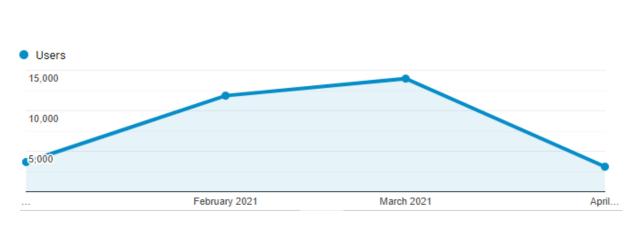


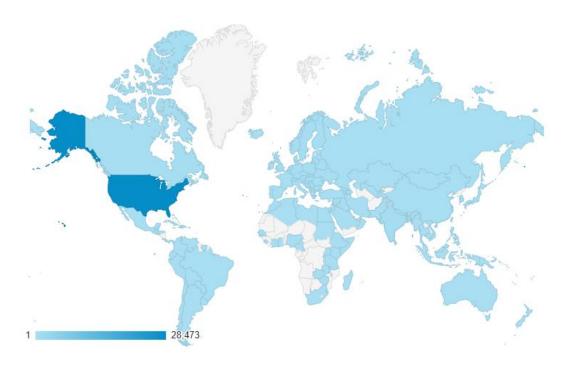
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### Traffic at <a href="https://covid19-help.org/">https://covid19-help.org/</a>

Since the launch of the website (April 2020), there has been a significant increase in the number of visitors – about 40,000 unique users on the website from all around the world





Data from Google Analytics







Michal Ivantyšyn
Founder





Tomáš Wagner Web developer



Katarína Rausová

Marketing Specialist



Ján Frankovský

Genetics Researcher



Zoltán Halász Machine Learning Specialist



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