



**GHENT  
UNIVERSITY**

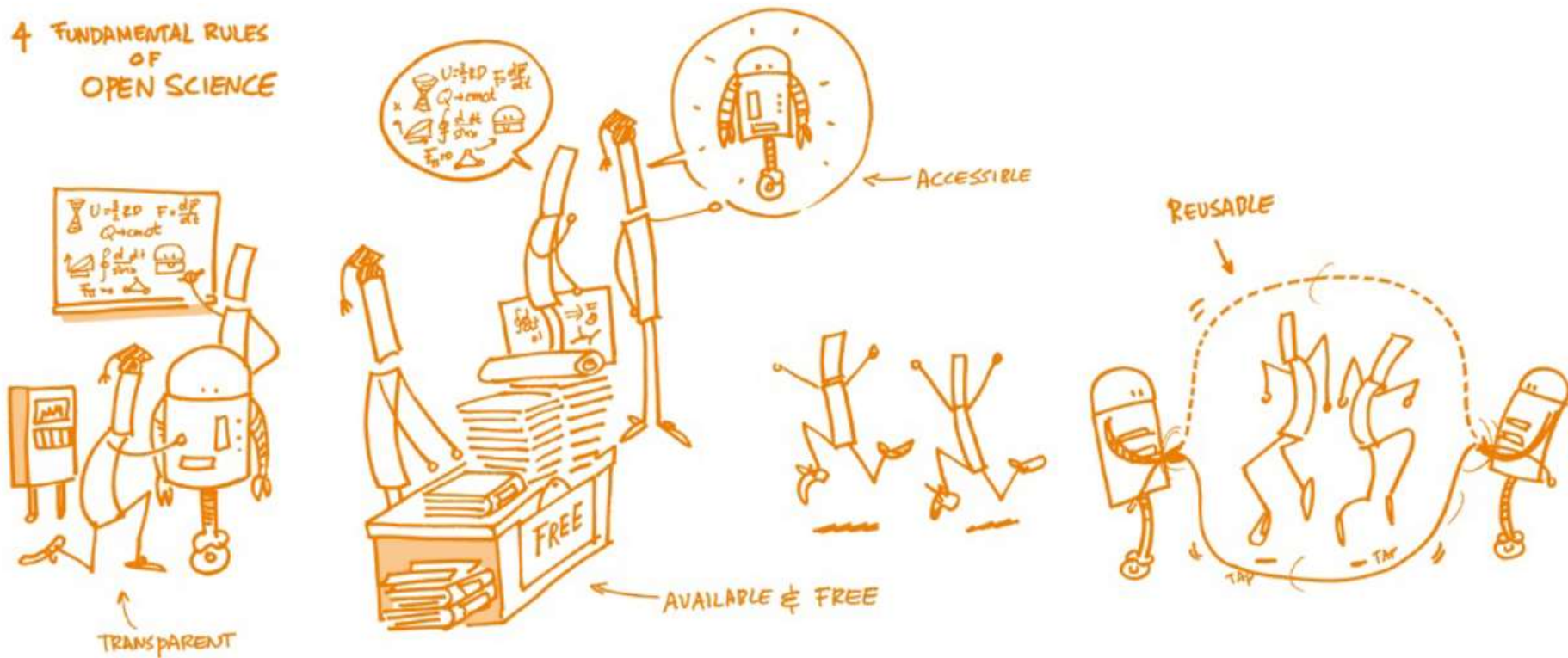
# DID THE PANDEMIC HELP OPEN SCIENCE?

Inge Van Nieuwerburgh – “The pandemic two years on - what consequences for international cooperation?” – 24 March 2022

# DILEMMA

Information overload  
Vs  
Open science

#### 4 FUNDAMENTAL RULES OF OPEN SCIENCE



## RRI is about: including all actors, and considering specific key issues and process dimensions



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Poster by  
David Ashby  
[www.techforschools.blogspot.com](http://www.techforschools.blogspot.com)



# PREPRINTS

“The COVID-19 pandemic has seen a surge in the numbers of preprints submitted by researchers [97]. While 807 preprints were deposited on medRxiv in the six-month period between 1<sup>st</sup> July 2019 and 31<sup>st</sup> December 2019, 6,771 preprints were submitted in the next six months (between 1<sup>st</sup> January 2020 and 30<sup>st</sup> June 2020), an increase of 739%. These figures are, respectively, 15,838 and 21,804 for bioRxiv (38% increase) and 87,942 and 112,197 for arXiv (28% increase). A recent study [98] gives more insights on the scale of this disruption. The use of preprints during outbreaks is certainly not new: a systematic review identified the publication of 174 and 75 preprints during the Ebola and Zika virus outbreaks, respectively [99]. Nevertheless, these figures are much smaller than the number of preprints submitted in the first 6 months of the COVID-19 pandemic.”

Besançon, L., Peiffer-Smadja, N., Segalas, C. *et al.* Open science saves lives: lessons from the COVID-19 pandemic. *BMC Med Res Methodol* 21, 117 (2021). <https://doi.org/10.1186/s12874-021-01304-y>

# PRE-PRINTS

**U brak nog met een tweede taboe: u trekt zo snel mogelijk naar de media en wacht niet af tot een analyse in een vaktijdschrift is gepubliceerd.**

‘We analyseren een extreem weerfenomeen in realtime en wachten niet op de peerreview, de gebruikelijke en belangrijke kwaliteitscontrole door collega-wetenschappers. Je kan dat arrogant noemen. En als ik het niet zelf zou doen, zou ik ook heel sceptisch zijn over die werkwijze.’

**Waarom moeten wij dan vertrouwen hebben in uw analyses?**

‘De methodiek achter onze analyses is niet nieuw en is onderworpen aan alle nodige kwaliteitstoetsen. Onze snelheid compenseren we bovendien door telkens heel transparant te zijn. We nodigen iedereen uit om met onze data alles na te rekenen.’

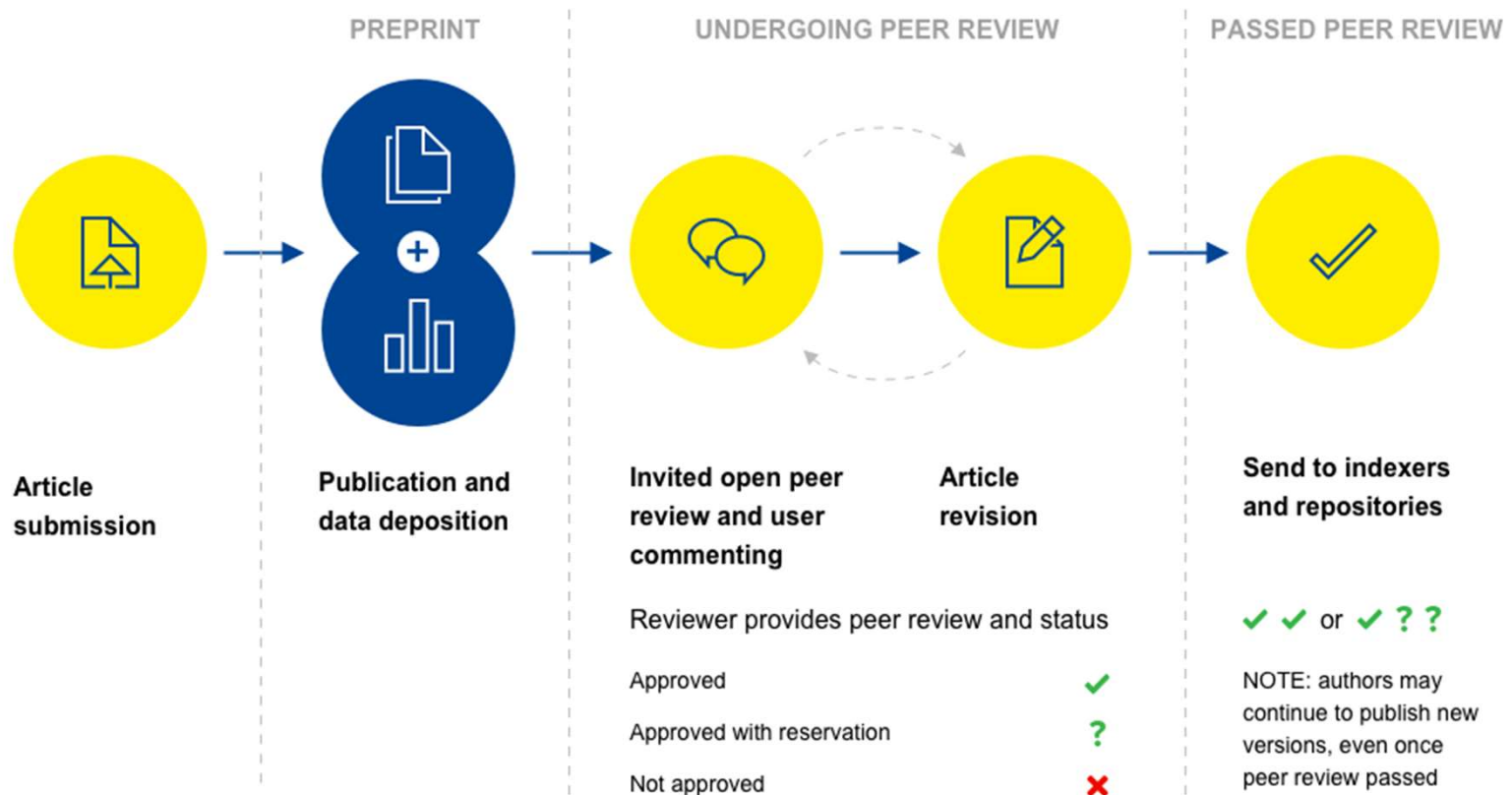
‘We publiceren onze resultaten ook nog altijd in vaktijdschriften en daarvoor moeten ze de peerreview doorstaan. Tot dusver hebben we nog geen enkele keer de resultaten en conclusies moeten bijstellen die we hadden gepresenteerd. Juist omdat veel klimaatwetenschappers sceptisch waren over ons werk – en nog altijd zijn – liggen onze studies steeds onder het vergrootglas. Er zijn volgens mij geen andere studies in de klimaatwetenschap die even streng worden beoordeeld.’

Interview Friederike Otto door Maxie Eckert,  
De Standaard zat. 16 okt. 2021,  
[https://www.standaard.be/cnt/dmf20211015\\_97573912](https://www.standaard.be/cnt/dmf20211015_97573912)

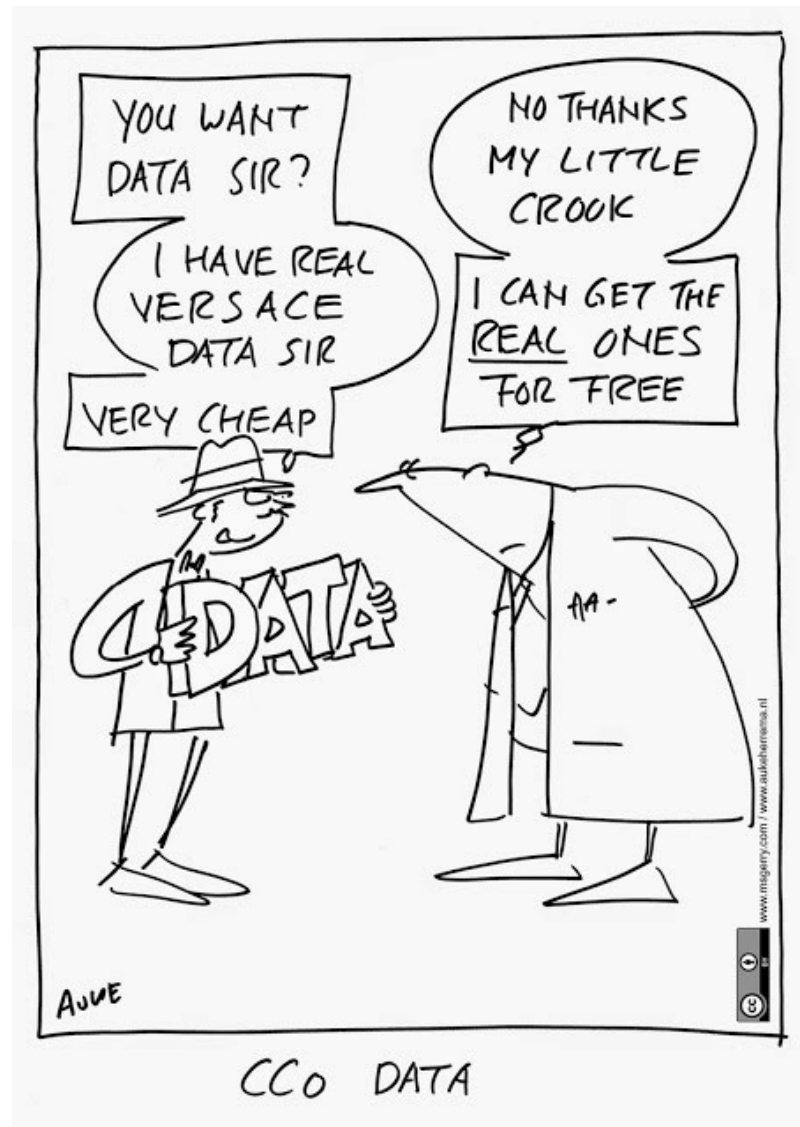
# OPEN PEER REVIEW



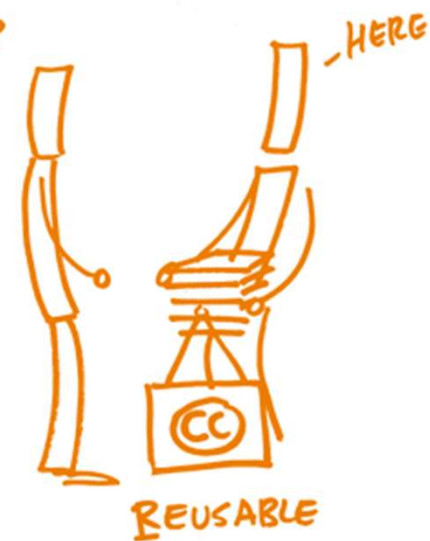
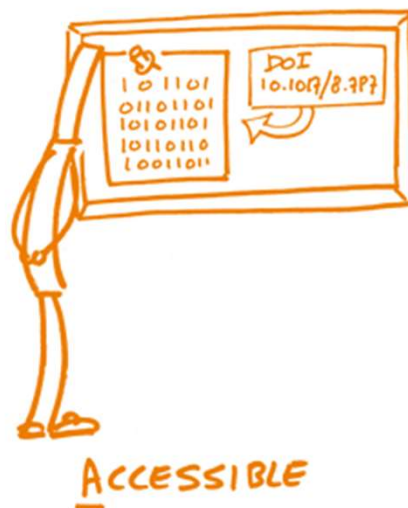
# ORE: PUBLISHING VENUE FOR EU RESEARCH



# FAIR & OPEN DATA



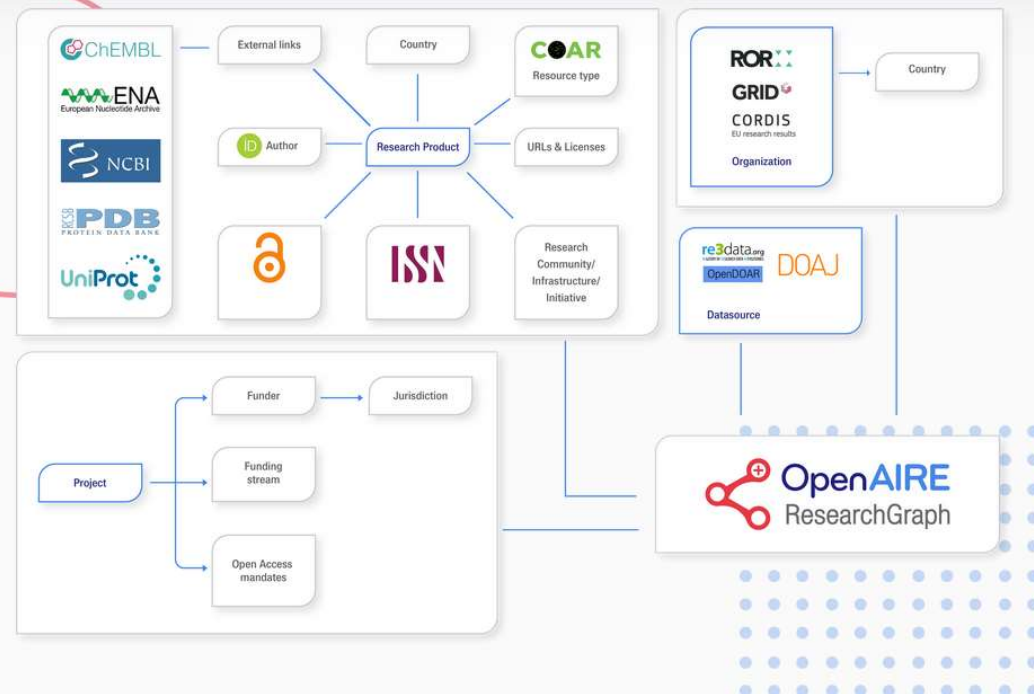
## FAIR DATA PRINCIPLES



<https://book.fosteropenscience.eu/>

# COMBINE SOURCES

**From open and  
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# COVID-19 OPEN RESEARCH GATEWAY



DEPOSIT

## Corona Virus Disease COVID-19

Research outcomes ▼

Search by title, author, abstract, DOI, orcid...

SEARCH

[Advanced Search](#)

SUMMARY

PUBLICATIONS  
**601,877**

RESEARCH DATA  
**19,207**

SOFTWARE  
**1,534**

OTHER RESEARCH  
**24,395**

This portal provides access to publications, research data, projects and software that may be relevant to the Corona Virus Disease (COVID-19). The OpenAIRE COVID-19 Gateway aggregates COVID-19 related records, links them and provides a single access point for discovery and navigation. We tag content from the OpenAIRE Research Graph (10,000+ data sources) and additional sources. All COVID-19 related research results are linked to people, organizations and projects, providing a contextualized navigation.

Curated by: [Alessia Bardi](#), [Iryna Kuchma](#), [M<sup>re</sup>Eugenia Saéz Goñi](#), [Evgeny Bobrov](#), [Ivana Truccolo](#) ...

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Created: 16-Mar-2020 Members: 89


Projects: 446 Content Providers: 19 [i](#)

Linked to 7 Zenodo Communities [i](#)

Subjects

[COVID19](#), [SARS-CoV](#), [HCoV-19](#), [mesh:C000657245](#), [MERS-CoV](#), [Síndrome Respiratorio Agudo Severo](#), [mesh:COVID-19](#), [COVID2019](#), [COVID-19](#), [SARS-CoV-2](#), [2019 novel coronavirus](#), [severe acute respiratory syndrome coronavirus 2](#), [Orthocoronavirinae](#), [Coronaviridae](#), [mesh:D045169](#), [coronavirus](#), [SARS](#), [coronaviruses](#), [coronavirus disease-19](#), [sars cov 2](#)

[View all](#)



## Coronavirus Disease Research Community - COVID-19

### Recent uploads

March 22, 2022 (14)
 [Journal article](#)
[Open Access](#)

View

#### Correlates of Protection Against SARS CoV-2 Infection and Covid 19 Disease

Goldblatt, David; Alter, Galit; Crotty, Shane; Plotkin, Stanley;

Antibodies against epitopes in S1 of SARS-2 coronavirus give the most accurate correlate of protection against infection. Measurement of those antibodies by neutralization or binding assays have predictive value. However, the protective functions of antibodies are multiple, including Fc effect

Uploaded on March 22, 2022

March 20, 2022 (114)
 [Dataset](#)
[Open Access](#)

View

#### A large-scale COVID-19 Twitter chatter dataset for open scientific research - an international collaboration

Banda, Juan M.; Tekumalla, Ramya; Wang, Guanyu; Yu, Jingyuan; Liu, Tuo; Ding, Yuning; Artemova, Katya; Tutubalina, Elena; Chowell, Gerardo;

Version 106 of the dataset. The peer-reviewed publication for this dataset has now been published in Epidemiologia an MDPI journal, and can be accessed here: <https://doi.org/10.3390/epidemiologia2030024>. Please cite this when using the dataset. Due to the relevance of the

Uploaded on March 21, 2022

Published in Epidemiologia, vol. 2, issue 3, pp. 315-324.

106 more version(s) exist for this record

July 15, 2021 (13)
 [Software](#)
[Open Access](#)

View

#### Analysis Code: Digital contact tracing contributes little to COVID-19 outbreak containment

Burdinski, Angélique; Brockmann, Dirk; Maier, Benjamin F;

# Digital Contact Tracing This package provides the simulation, analysis, and figure code for the manuscript "Digital contact tracing contributes little to COVID-19 outbreak containment" by A. Burdinski, D. Brockmann, and B. F. Maier. ## Prerequisites The analysis code was used and test

Uploaded on March 21, 2022

2 more version(s) exist for this record

December 6, 2021 (42)
 [Dataset](#)
[Open Access](#)

View

#### The translational landscape of SARS-CoV-2 and infected cells reveals suppression of innate immune genes

Sebla B Kutluay;

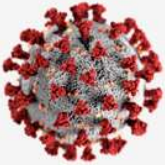
SARS-CoV-2 utilizes a number of strategies to modulate viral and host mRNA translation. Here, we used ribosome profiling in SARS-CoV-2 infected model cell lines and primary airway cells grown at the air-liquid interface to gain a deeper understanding of the translationally regulated events in response

Uploaded on March 21, 2022

1 more version(s) exist for this record

New upload

Community



#### Coronavirus Disease Research Community - COVID-19

This community collects research outputs that may be relevant to the Coronavirus Disease (COVID-19) or the SARS-CoV-2. Scientists are encouraged to upload their outcome in this collection to facilitate sharing and discovery of information. Although Open Access articles and datasets are recommended, also closed and restricted access material are accepted. All types of research outputs can be included in this Community (Publication, Poster, Presentation, Dataset, Image, Video/Audio, Software, Lesson, Other).

[Read more](#)

**Curated by:**  
Covid19\_Team\_OpenAIRE

**Curation policy:**  
The Coronavirus Disease Research Community - COVID-19 is curated by a selected team of experts nominated by [OpenAIRE](#) (see list below). Each time a Zenodo user wants to add a record into the community, an email is sent to the curators that will decide whether to include the record or not.

Only records that may be relevant to the Corona Virus Disease (COVID-19) or the SARS-CoV-2 should be included in this community. The Community curators are not able to edit records, therefore they may ask the corresponding authors to modify the record metadata when necessary, to provide the readers/users with more detailed information according to the FAIR principle of Open Science.

If after its acceptance, a record is subsequently found not to be compliant, we reserve the right to remove it from the community.

## Accelerating research through data sharing

Read and sign our letter in support of open COVID-19 data >

### [COVID-19 Data Portal Survey >](#)

Help us to improve the portal by completing the COVID-19 Data Portal Survey. It only takes 2-3 minutes to complete.

[Participate](#)

#### Viral sequences →

Raw and assembled sequence and analysis of SARS-CoV-2 and other coronaviruses.

[9,305,126 records >](#)

#### Expression →

Gene and protein expression data of human genes implicated in the virus infection of the host cells. Identifying cell types and genes with highest expression in SARS-CoV-2 infections.

[135 records >](#)

#### Networks →

COVID-19 pathways, interactions, complexes, targets and compounds.

[7,505 records >](#)

#### Host sequences →

Raw and assembled sequence and analysis of human and other hosts.

[22,475 records >](#)

#### Proteins →

Curated functional and classification data on the SARS-CoV-2 protein entries and associated protein receptors.

[3,214 records >](#)

#### Samples →

Biomaterials relating to SARS-CoV-2 and its research.

[3,936,540 records >](#)

#### Latest news →



#### COVID-19 Data Portal Survey

23 Feb 2022

15 Dec 2021

[10th VEO report on SARS-CoV-2 mutations and variations now published](#)

1 Dec 2021

[Improving spatio-temporal annotations in the European Nucleotide Archive](#)

15 Nov 2021

## PREPARE FOR THE FUTURE: HORIZON EUROPE

Public emergency => all research results open with a non exclusive licence

See AGA – Annotated Model Grant Agreement p140

[https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/aga\\_en.pdf](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/aga_en.pdf)

# Inge Van Nieuwerburgh

Open Science team

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