Open Peer Review: Open Research Europe, a case study

University of Maribor Open Science Summer School

16th September 2022

Alicia Estacio Gomez | Content Acquisition Editor| F1000
Joe Kelly | Associate Editorial Assistant | F1000

European Commission | Powered by F1000 Research

Background

Who | What | When | Where | Why | How

Open Research Europe (ORE)

✓ **Public Procurement** − 5.8 Million EUR contract signed in March 2020 with F1000Research for 4 years

✓ **GYA, LIBER** and **Eurodoc** as collaborators for communication and sustainability

✓ **OpenAIRE** are a partner to help with syndication and communication of ORE

✓ **Open access publishing venue** for Horizon 2020, Horizon Europe and Euratom beneficiaries

Open Research Europe platform was launched in March 2021

264 publications on the platform (September 2022)

open-research-europe.ec.europa.eu

Open Research Europe

Why a publishing platform?

✓ **High-quality, reliable and efficient** publishing venue for Horizon 2020, Horizon Europe and Euratom research

✓ **High scientific standards** & swift and transparent processes

✓ Expert **Scientific Advisory Board**

✓ **No cost to authors/beneficiaries** i.e. non-APC platform

✓ An optional publishing venue where grantees can **publish post-grant** results of their work, while adhering to their **open access** obligations

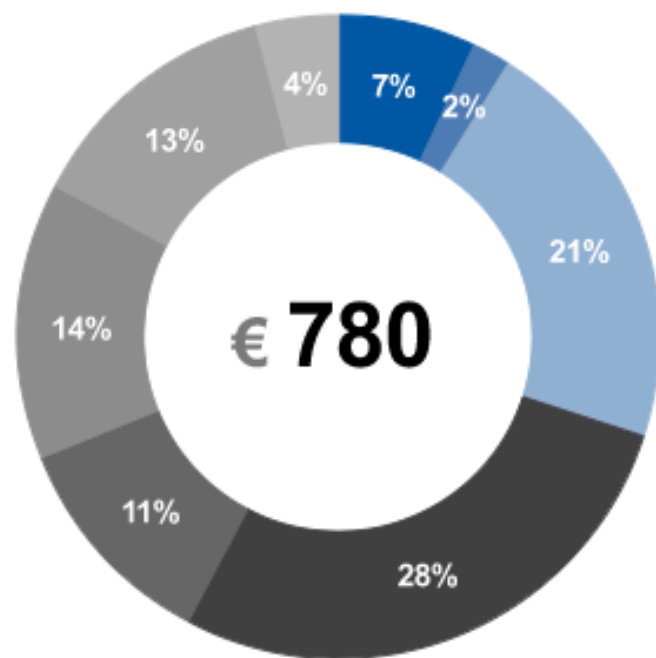# Ambitions of the European Commission

To lead by example in operationalising open science principles within scientific publishing & exploring **sustainable** open access publishing **business models**

- ✓ **Open peer-review, and early sharing of research**

- ✓ **Immediate publication**

- ✓ **New generation article metrics**

- ✓ **Transparency & cost-effectiveness (APCs paid for by the Commission – 780 EUR)**

open-research-europe.ec.europa.eu/article-processing-charges

Price Transparency

Transparent about the costs & the breakdown for the price that the Commission pays per article.

€ 780

Community development		7%
Submission to pre-publication checks		2%
Peer review management		21%
Pre-publication checks to publication		28%
Services after publication		11%
Platform development		14%
Marketing and business development		13%
Author and user support		4%

The platform as a publishing service

- ✓ **Original peer-reviewed articles**

  Stemming from Horizon 2020, Horizon Europe, Euratom-funded research

- ✓ **Immediate open access**

  With content licensed for <u>re-use</u>

- ✓ **Open peer review**

  Open reviewer identities, published reviews, post-publication comments

- ✓ **Super-networked and TDM-able**

  PIDs, connection to repositories, open data and software, interoperable technologies, preservation of content

The platform as a publishing service

✓ **New generation metrics**

Each article will have a dedicated metrics page

✓ **Explicit, accessible and transparent on business processes and publication policies**

Will all be published on the site for everyone to see

✓ **Aligned with the EC policy and principles**

Takes burden of researchers as its fully compliant

✓ **Following example of other funders**

- Such as the Wellcome Trust (Wellcome Open Research) and others

ORE: the platform so far

Stats | Major milestones | Content curation |

Open Research Europe

Progress of the platform so far

264 published articles

**206** articles completed peer review

146 articles passed peer review
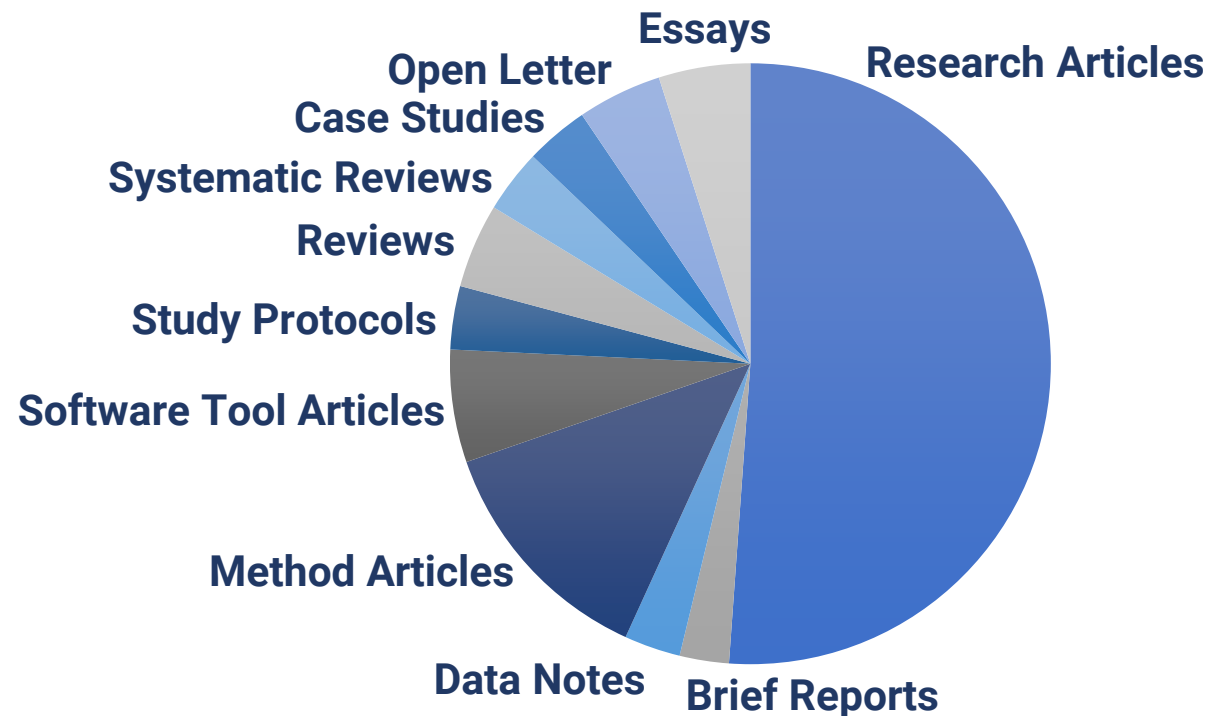
Pie chart categories: Essays, Open Letter, Case Studies, Systematic Reviews, Reviews, Study Protocols, Software Tool Articles, Method Articles, Data Notes, Brief Reports, Research Articles

Progress of the platform so far

Subjects areas

- ✓ Agricultural and veterinary sciences
- ✓ Humanities and the arts
- ✓ Natural sciences

- ✓ Engineering and technology
- ✓ Medical and health sciences
- ✓ Social sciences

Agriculture and veterinary sciences 3%

Engineering and technology 26%

Social Sciences 29%

Humanities and the arts 6%

Natural Sciences 22%

Medical and health sciences 14%
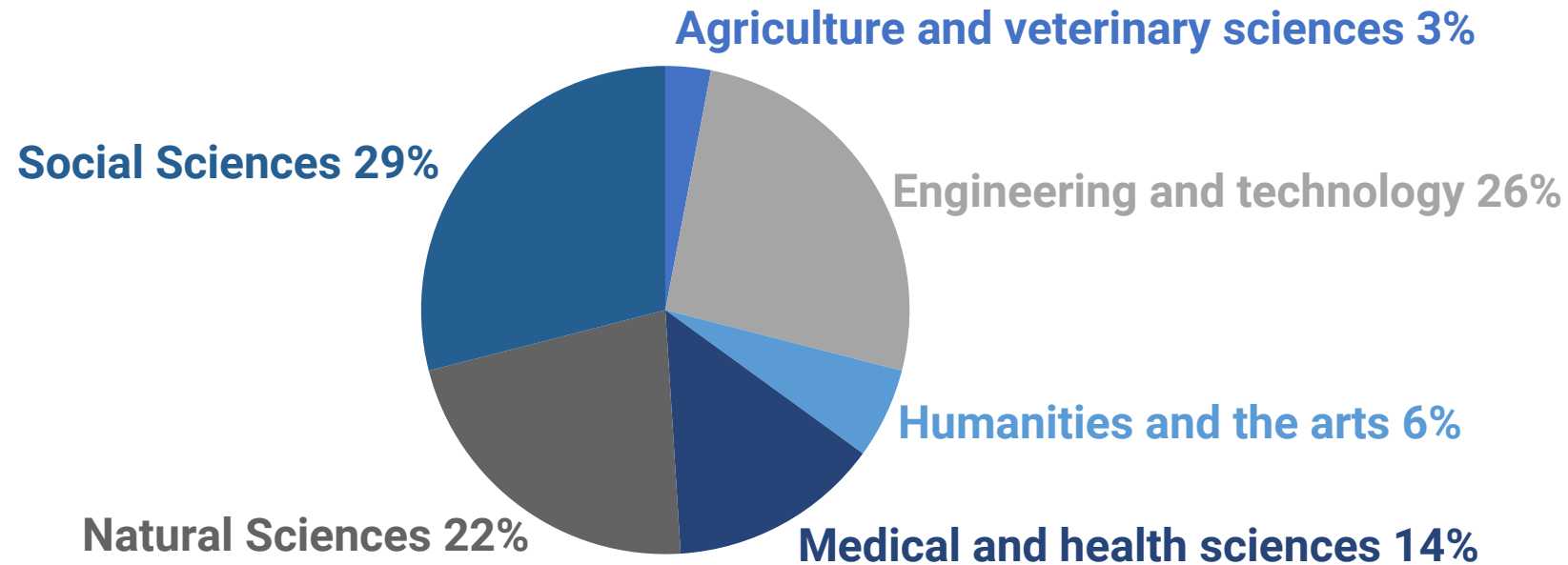
Progress of the platform so far

Community Gateways

- ✓ Dedicated hubs housing all content related to a specific subject area
- ✓ Led by Community Gateway Advisors

Forest and Forestry Sciences

The Forest and Forestry Sciences community gateway is focused on maintaining and improving the key functions of forests as well as preventing deforestation, and is led by Dr. Emma Sayer.

Health Sciences

The Health Sciences community gateway is the dedicated space for all scientific aspects of health, covering threats, benefits and information, and is led by Dr. Noora Hirvonen.

History and Archaeology

This Community Gateway is a home for research in History: the study and documentation of the past, and Archaeology: the study of artefacts, sites, physical remains, and visual evidence, to help us understand the development of human prehistory and history. It is led by Professor Vinciane Pirenne-Delforge and Professor Véronique Dasen.

Inorganic Chemistry

Inorganic chemistry studies the structures, properties and reactions of (bio)inorganic, organometallic, coordination, main group, transition metal, or solid state compounds. This community gateway is led by Prof. Marcel Swart.

Progress of the platform so far

Collections
- ✓ Compilations of content for Horizon funded communities, projects or conferences.
- ✓ Overseen by Horizon- funded Guest Advisors

Energy Storage

Energy storage refers to the capture of energy and the effective delivery of it for future use. As the energy crisis has intensified, energy storage has become a major focus of research in both industry and academia.

Energy Systems Modelling

The transition to a clean and renewable energy system is recognised as one of the biggest challenges the world faces this century. Energy models are key to the transformation of the energy system, facilitating the transition towards sustainable energy sources. This collection will be publishing papers from the 2021 EMP-E conference.

Epigenetics

The word epigenetic literally means "on top of" changes in genetic sequence. It mostly involves modifications of gene activity and expression, either coming from external or environmental factors, or even part of normal development, without changing the nucleotide sequence. This collection is being led by Dr. Germano Cecere and Dr. Jop Kind.

Evolutionary Biology

Evolutionary Biology studies the processes that generate diversity on earth. In this collection Dr. Mehmet Somel and Dr. Claudio Ottoni aim to attract research on understanding how species have managed to evolve and adapt to changing environments.

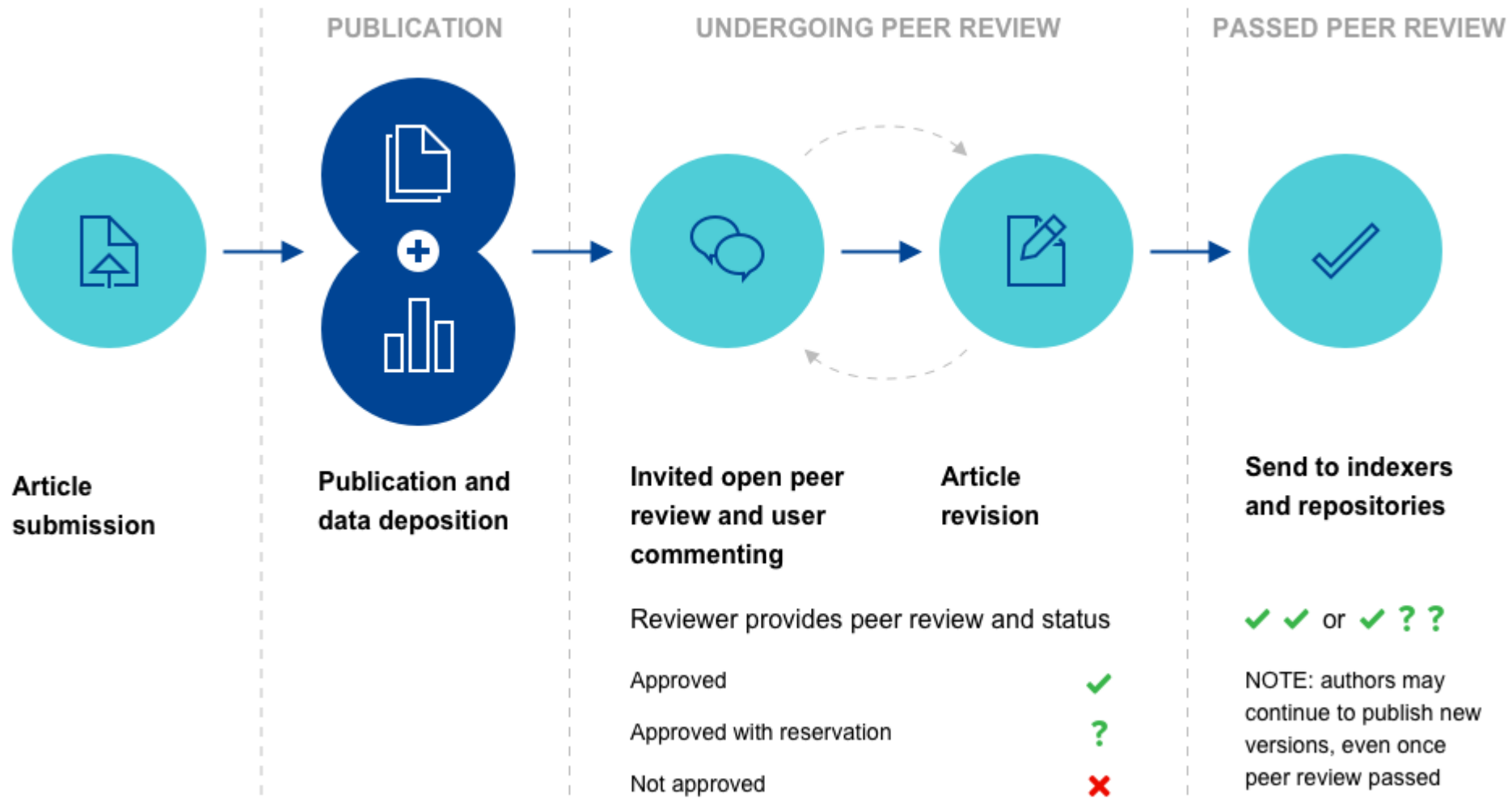# How to maximise your grant funded research outputs through a variety of article types

Review
- Provides a balanced and comprehensive summary of the latest discoveries in the field which can be cited in subsequent articles.

Study Protocol
- Allows researchers to present their rationale and proposed methods for their study and get these peer reviewed.

Method
- Can be used to present new methods or modifications of existing methods.
- Methods support robust, reproducible research, and research training while ensuring those who developed the method are given credit.
- Can be updated as the method is refined.

Brief Report
- Publishing a Brief Report during the data collection stage of your project allows you to analyse a sub-set of the data and to validate it.

Data Note
- Allows researchers to present their data openly in a highly discoverable, useable, and reproducible way ensuring they get both recognition and credit for their data.
- Data Notes can then be linked to any subsequent research articles using the data.

Research Articles
Writing a Research Article at the analysis stage of a research project is now really easy:
1. Published Reviews, Study Protocols and Methods are citable.
2. Data, relevant code and software is already available and can be linked and cited.

CONCEPT
PLANNING
DATA COLLECTION
ANALYSIS

Brief Report
- Brief Reports allow researchers to share small preliminary studies, describe unexpected or unexplained results or small finding that traditional would be hidden away in supplementary materials.
- Can be described using a few illustrations or even a single figure.

Software Tool Article
- Software tools and code are themselves a research output.
- Software Tool articles therefore improve the transparency, visibility and reproducibility of algorithms, code, workflows etc. developed as part a research project, while ensuring the researchers and any associated developers are credited.

Method
- A Method article can be produced alongside a Software Tool Article to provide detailed operational instructions to facilitate reuse.

Brief Report
- Ensures that findings outside the scope of the Research Article are made accessible.

Open Research Europe

Supporting research across all disciplines

	Natural sciences	Engineering and technology	Medical and health sciences	Agricultural and veterinary sciences	Social sciences	Humanities and the arts
Case Study	●	●	●	●	●	●
Research Article	●	●	●	●	●	●
Brief Report	●	●	●	●	●	●
Data Note	●	●	●	●	●	●
Method Article	●	●	●	●	●	●
Open Letter	●	●	●	●	●	●
Software Tool Article	●	●	●	●	●	●
Review	●	●	●	●	●	●
Case Report	●	●	●	●		
Registered Report	●	●	●	●	●	
Clinical Practice Article	●	●	●	●		
Study Protocol	●	●	●	●	●	
Systematic Review	●	●	●	●	●	
Essay					●	●

ORE: How it works

The publishing model

Open Research Europe

Open Research Publishing Model

Pre-Pub Checks

Pre-Pub Checks | Publication

Pre-Publication Checks

Submissions are rigorously checked by the in-house editorial team before being published.

Plagiarism check

Language review

Data availability

Authorship criteria

Ethical approval (if needed)

Adhering to guidelines

Analysis of the method

Data Deposition
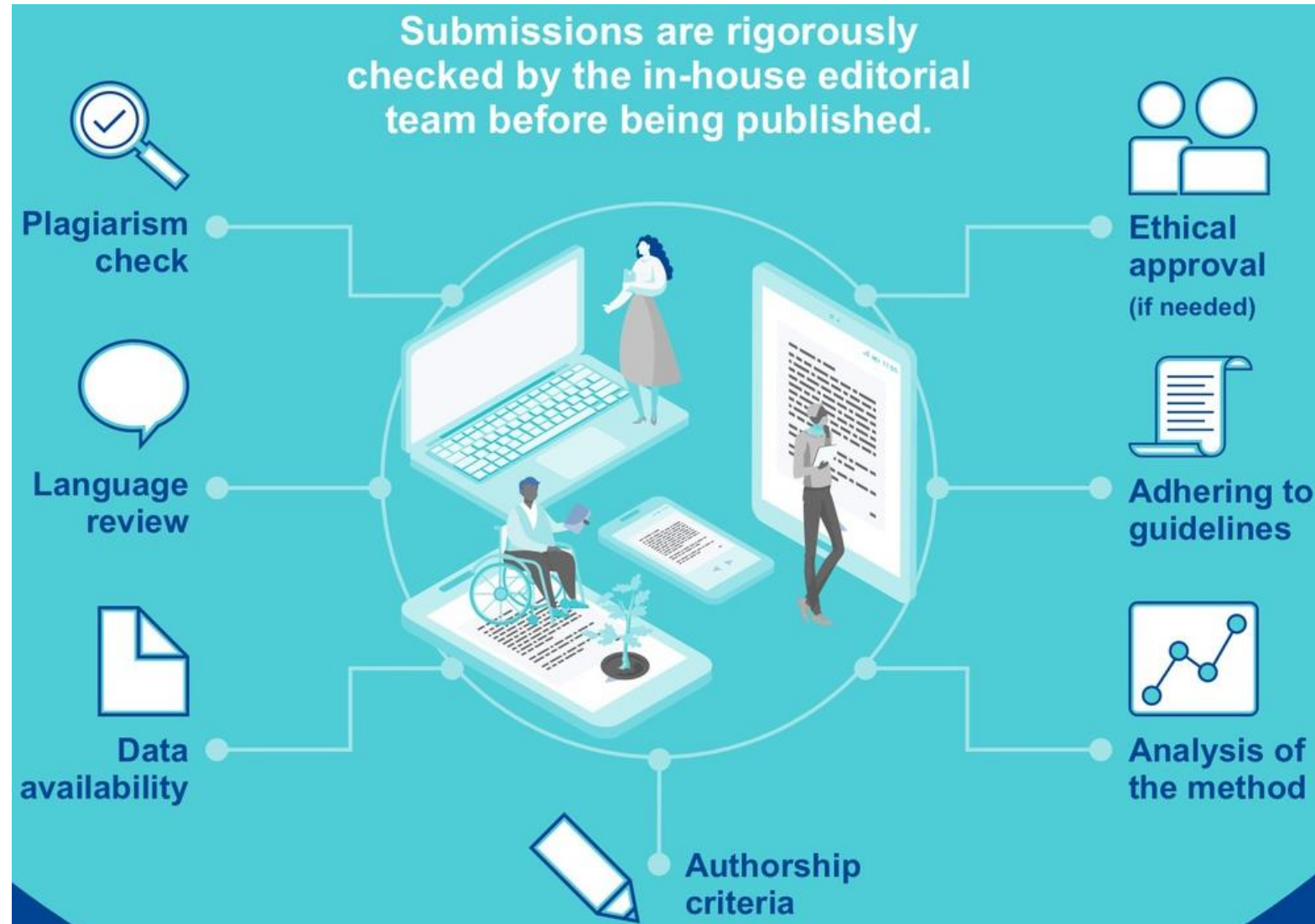
Open Research Europe requires that, where possible, the source data underlying the results are made available at publication

✓ However, the sharing of research data **must**:

✓ Protect the confidentiality, security and privacy of individuals

✓ Respect the terms of consent by individuals who are involved in research

✓ Be consistent with Horizon Europe legal, ethical & regulatory frameworks

open-research-europe.ec.europa.eu/data-guidelines

Open data example

Data availability

Underlying data

Zenodo: IRM raw data (video format) and dataset (csv) supporting platelet attachment to collagen IV or fibrinogen in percentage over time (related to Figure 1), https://doi.org/10.5281/zenodo.3774819[47].

Zenodo: Raw data, temporal profiling for platelet spreading dynamics (related to Figure 3). https://doi.org/10.5281/zenodo.3774823[48].

Zenodo: Raw data for microtubule extension IRM images (videos) and raw data set (csv) (related to Figure 4), https://doi.org/10.5281/zenodo.3774827[49].

Zenodo: Raw data (IRM videos) of Nocodazole experiments (videos) and raw dataset for statistical purposes (csv) (related to Figure 4), https://doi.org/10.5281/zenodo.3774835[50].

Zenodo: Nocodazole experiment low mag images, IRM, raw data. Platelets fixed, imaged by IRM in low magnification for counting purposes. Platelets are either control or treated with nocodazole, https://doi.org/10.5281/zenodo.3774843[51].

Zenodo: Raw data to support percentage of platelets in each morphological state, 1 hour post-platelet seeding (related to Figure 8), https://doi.org/10.5281/zenodo.3774845[52].

Zenodo: Dynamics of platelet spreading over time with/without treatments with manganese and thrombin (related to Figure 8). Raw images of platelets treated with and without Manganese and thrombin (tif, jpegs) and raw data set (csv), https://doi.org/10.5281/zenodo.3774849[53].

Zenodo: Un-cropped and unedited images/movies for all (DIC, movies, cryo-ET, SEM images). https://doi.org/10.5281/zenodo.3773437[54].

Extended data

Figshare: Differential dynamics of early stages of platelet adhesion and spreading on collagen IV- and fibrinogen-coated surfaces, https://doi.org/10.6084/m9.figshare.c.4944738[24].

This project contains the following extended data:

- **Figure S1. Platelet integrated activity.** Integrated activity of platelets: the mean absolute value |ΔIRM| at every time point. X-axis: Time in seconds. Y-axis: Platelet mean activity. Red dotted lines separate the phases: background, prior to platelet attachment, filopodial spreading phase, lamellipodial spreading phase, and the fully spread phase.

- **Figure S2. Interactions with the surface for collagen IV and fibrinogen.** The number of pixels interacting with the surface over time for the surfaces collagen IV and fibrinogen. Time in seconds.

- **Figure S3. Quantification and image analysis of platelet spreading, based on IRM live imaging for fibrinogen.** (A) Platelet spreading viewed by IRM, and the corresponding focal activity map, $\Delta IRM_t = IRM_t - IRM_{t+1}$. Positive values (yellow) imply local attachment; negative values (blue) imply local detachment (bottom right). One filopodia initially attaching and detaching (black arrow). Scale bar 2 μm (B) Integrated tapping activity of platelets: the mean absolute value |ΔIRM| at every time point. X-axis: Time in seconds. Y-axis: Platelet mean activity. Red dotted lines separate the phases: background, prior to platelet attachment, filopodial spreading phase, lamellipodial spreading phase, and the fully spread phase. (C) Total number of pixels interacting with the surface over time. Time in seconds. (D) Accumulated attachment and detachment over time shown by activity map, yellow means more attachment events, blue means fewer attachment event. Right images, correspond IRM images. Scale bar 2 um.

- **Movie S1.** Shows the accumulated number of transitions from interaction to not interacting with the surface at every pixel over time.

- **Movie S2.** Shows an overlay of the highly active regions on top of the IRM images over time on collagen IV.

- **Movie S3.** Shows an overlay of the highly active regions on top of the IRM images over time on fibrinogen.

Data are available under the terms of the Creative Commons Attribution 4.0 International license (CC-BY 4.0).

Software availability

IRM spreading dynamics source code available from: https://github.com/assafZaritskyLab/IRM-Spreading-Dynamics

Archived source code as at time of publication: https://doi.org/10.5281/zenodo.3770506[21]

License: GNU General Public License v3.0

Publication

66 Cite | ⬇ Download ▾ | ➔ Export ▾ | ⬱ Share ▾ | ⨀ Track

Home › Articles › A new nomenclature for the livestock-associated Mycobacterium ...

RESEARCH ARTICLE 🔓

A new nomenclature for the livestock-associated *Mycobacterium tuberculosis* complex based on phylogenomics [version 1; peer review: awaiting peer review]

Michaela Zwyer, Cavusoglu Cengiz (ID), Giovanni Ghielmetti (ID), Maria Lodovica Pacciarini, Erika Scaltriti, Dick Van Soolingen, Anna Dötsch, Miriam Reinhard, Sebastien Gagneux (ID), Daniela Brites ✉ (ID)

This article is included in Excellent Science gateway

| Article | Authors | Metrics |

Abstract

Background

The bacteria that compose the *Mycobacterium tuberculosis* complex (MTBC) cause tuberculosis (TB) in humans and in different animals, including livestock. Much progress has been made in understanding the population structure of the human-adapted members of the MTBC by combining phylogenetics with genomics. Accompanying the discovery of new genetic diversity, a body of operational nomenclature has evolved to assist comparative and molecular epidemiological studies of human TB. By contrast, for the livestock-associated MTBC members, *Mycobacterium bovis*, *M. caprae* and *M. orygis*, there has been a lack of comprehensive nomenclature to accommodate new genetic diversity uncovered by emerging phylogenomic studies. We propose to fill this gap by putting forward a new nomenclature covering the main phylogenetic groups within *M. bovis*, *M. caprae* and *M. orygis*.

Open Peer Review

Reviewer Status

AWAITING PEER REVIEW

Comments on this article

All Comments (0)

Sign in to comment

Sign up for content alerts

Email address * | **Sign Up**

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Peer Review

Selection | Verification | Invitation

Selecting reviewers – author selection

Once an article has been conditionally accepted, authors are directed to the peer reviewing section of their ORE account to select reviewers.

ORE requires authors to suggest 5 reviewers (which must be verified) – articles will not be published without them.

The ORE editorial management system and the editorial team support authors in making the author suggestions.

Selection is made two ways:

1. Through knowledge of their field of research

2. Using the ORE peer review selector tool

Reviewer verification

Once the names have been selected, they await verification by the ORE editorial team.

- **Qualified** – reviewers are checked they have the correct expertise

- **Expert -** at least 3 articles as lead author in a relevant topic, with at least 1 article having been published in the last 5 years

- **Impartial -** no co-authoring with lead authors in the 3 years preceding; don't work at the same institution; are not a close collaborator with an author, no competing interests

- **Global:** For any given article, we require authors to suggest geographically-diverse reviewers

- **Diverse**: reviewers should be diverse with regards to their gender, location and career stage

- **Additional expertise:** e.g., statistics experts required if necessary

Reviewer invitation and publication

Upon publication ORE editorial team will invite the agreed verified reviewers

✔️ **APPROVED**

The paper is scientifically sound in its current form and only minor, if any, improvements are suggested
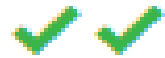
❓ **APPROVED WITH RESERVATIONS**

A number of small changes, sometimes more significant revisions are required to address specific details and improve the papers academic merit.

❌ **NOT APPROVED**

Fundamental flaws in the paper seriously undermine the findings and conclusions

When a Review is received the editorial team:

- Ensure all aspects of an article is reviewed and the peer review questions have been answered
- Check the reports for tone and language and the correct status has been applied
- Publish the report online (triggering email to the author)

If reviewers decline to review the editorial team:

- Update the system with declines and reason
- Reach out to the author for more suggestions (which get verified again)
- Provide support for selections if needed

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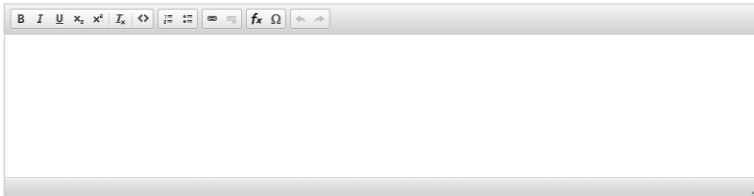
Reviewer form

A reviewer must fill in all sections of this form to be published in ORE

Each different type of paper on ORE has a specific set of questions which reviewers must answer.

Reviewer obligations

Upon publication ORE editorial team will invite the agreed verified reviewers

When a review is published:

- Reviewer identity made publicly available
- Reviewer report made publicly available
- Must add any competing interests
- Asked to declare their reviewer expertise (which is published)

Approval Statuses

✓ APPROVED

The paper is scientifically sound in its current form and only minor, if any, improvements are suggested

? APPROVED WITH RESERVATIONS

A number of small changes, sometimes more significant revisions are required to address specific details and improve the papers academic merit.

✗ NOT APPROVED

Fundamental flaws in the paper seriously undermine the findings and conclusions

Every report published on Open Research Europe contains an Approval status which determines peer review of the article.

An article is considered to have been fully assessed when it has received two reviews.

✓ ✓ **2 'Approved' Status**

✓ ? ? **2 'Approved with reservations' and 1 'Approved' Status**

Responses and New Versions

Reviewer Report 56 Views

✓ Approved

09 Apr 2021   VERSION 1

Pamela Hussey, School of Nursing Psychotherapy and Community Health, Dublin City University, Dublin, Ireland

❞ Cite this Report
💬 Responses (1)

Overall I think this paper provides a good summary of the topic and how it relates to the profession, but I think it gets a bit diluted in places and would benefit from some additional signposting. For example listing what the key insights are, and what the key preconditions are which are important to the profession in specific sections might be useful. I have made a few suggestions on edits for restructuring in the body of the material presented and attached to this report. I have also provided some minor editorial suggestions. Finally I think that the definition of AI section needs a little more detail. What is important is distinguishing ML as a type of AI. Overall this is an important paper and I recommend for indexing with some additional editing as per my comments on the attached file.

Is the topic of the review discussed comprehensively in the context of the current literature?

Yes

Are all factual statements correct and adequately supported by citations?

Yes

Is the review written in accessible language?

Yes

Are the conclusions drawn appropriate in the context of the current research literature?

Partly

Competing Interests

No competing interests were disclosed.

Reviewer Expertise

Nursing Informatics, Health Informatics, Standards.

AUTHOR RESPONSE 13 MAY 2021

Paul De Raeve
European Federation of Nurses Associations, Brussels, Belgium

Dear Dr Hussey, Thank you for your time and thorough assessment of this manuscript. We have considered your comments in detail and addressed all points in the text. For ease of review, we include below a point-by-point response. Thank you again for your helpful comments, advice and encouragement. We expect this paper to be embraced by the wider community and spark much needed debates and developments in this area. Sincerely, The Authors.

Reviewer 1 Author response
Overall, I think this paper provides a good summary of the topic and how it relates to the profession
Thank you for your positive feedback and encouragement. I think it gets a bit diluted in places and would benefit from some additional signposting. For example, listing what the key insights are, and what the key preconditions are which are important to the profession in specific sections might be useful.
Thank you for the helpful suggestion. We worked on the signposting in line with comments from other reviewers and took your advice to create a section on 'pre-conditions' and expand our Conclusion.
I have made a few suggestions on edits for restructuring in the body of the material presented and attached to this report. I have also provided some minor editorial suggestions.
This has been so very helpful -thank you. We have accepted your edits.
Finally, I think that the definition of AI section needs a little more detail. What is important is distinguishing ML as a type of AI.
A very good point, also picked up by other reviewers. We have now distinguished between AI and ML more clearly.
Overall, this is an important paper and I recommend for indexing with some additional editing as per my comments on the attached file.
Once again, thank you for your time and constructive advice.

Competing Interests: No competing interests were disclosed.

REVISED   **Amendments from Version 1**

Wording/edits changes and reformulation of some sentences were needed; a list of key insights was added, including what the key preconditions of successful deployment are which are important to the profession - using the existing text and framing it as a new section; more information/text was added to the definition of AI section; some parts of the text were moved to the conclusion section; the European White paper section was moved further up in the article; one more reference was added at the end of the article

See the detailed response from the author(s) to the review by Dorota Kilanska
See the detailed response from the author(s) to the review by Pamela Hussey
See the detailed response from the author(s) to the review by Andreas Xyrichis

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Passed Peer Review

What are the benefits?

- **Fast** – articles are published rapidly (as quickly as a week)

- **Inclusive** – can publish <u>all</u> research outputs

- **Open** – fulfils Commission's OA & data sharing requirements

- **Reproducible** – data is published alongside article

- **Transparent** – open, author-driven, peer review

- **Easy** – costs are met directly by the Commission

Open Research Europe in Action

Efficient
- Rigorous open peer review
- Rapid and transparent
- International scientific advisory board

Impactful
- Immediate open access
- Article-level metrics
- Open data for reproducibility and reuse

Stress-free
- Optional service*
- No administrative burden
- No author fees
- Automatic compliance with open access requirements

Service available also after grant has ended

Want to know more? Online resources

Publishing with Open Research Europe

What is Open Research Europe?

Open Research Europe is the European Commission's publishing service, providing all Horizon 2020 and Horizon Europe beneficiaries and their researchers with the option of an easy, high quality peer-reviewed venue to publish their papers open access, at no cost to them, and in full compliance with the European Commission's **open access policies.**

Through building Open Research Europe, the Commission aims to:

- Provide a high-quality service that meets general and discipline-specific standards of scientific publishing.
- Reinforce its position as a funder that leads by example in operationalizing open science.
- Encourage technology-enabled innovation in scholarly communication.
- Support the integrity and transparency of the research process and reproducibility of research.
- Contribute towards transparency and cost effectiveness in scientific publishing, as well as towards the exploration of sustainable open access business models.

- Links to Blog
- Videos
- FAQs
- Twitter account

https://think.f1000research.com/open-research-europe-submission/

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European Commission

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