# NHMRC Open Access Policy

2022

NHMRC

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# Contents

# Definitions

For the purposes of this Policy, terms are defined as outlined in Table 1.

Table 1.    Definitions

| Term | Definition |
|---|---|
| Administering Institution | Institution approved by NHMRC to administer NHMRC grants. |
| Article Processing Charge (APC) | A fee charged by a journal or publisher for publishing an open access article, which may be paid by the author's institution or funding body or by the author. APCs may also be paid as part of 'read and publish' or transformative agreements. |
| Author Accepted Manuscript | The version of an article that has been accepted for publication in a journal, including all changes made as a result of the peer review process, but excluding any editing, typesetting or other changes made by the journal or publisher. |
| Creative Commons Attribution 'CC BY' licence | The most open licence where creators retain their copyright while allowing others to distribute, remix, adapt, and build upon the material in any medium or format, so long as attribution is given to the creator. |
| Data/information | The terms 'data' and 'information' are often used interchangeably. Data can refer to raw data, cleaned data, transformed data, summary data and metadata (data about data). It can also refer to research outputs and outcomes. Likewise, information takes many different forms. 'Data' is usually used to refer to bits of information in their raw form, whereas 'information' generally refers to data that have been interpreted, analysed or contextualised.<br><br>Data and information may include but not be limited to:<br><br>• what people say in interviews, focus groups, questionnaires/surveys, personal histories and biographies<br>• images, audio recordings and other audio-visual materials<br>• records generated for administrative purposes (e.g. billing, service provision) or as required by legislation (e.g. disease notification)<br>• digital information generated directly by the population through their use of mobile devices and the internet<br>• physical specimens or artefacts<br>• information generated by analysis of existing personal information (from clinical, organisational, social, observational or other sources)<br>• observations<br>• results from experimental testing and investigations<br>• information derived from human biospecimens such as blood, bone, muscle and urine. |

| Term | Definition |
|---|---|
| Diamond open access | Term used when the Version of Record is published in an open access journal with an open licence, where the journal is produced by a non-traditional publisher and is usually community-driven and supported by institutions or by national or regional infrastructure. These journals do not have an Article Processing Charge. |
| Final Report | A report submitted at the completion of an NHMRC funded research project as required by the NHMRC Funding Agreement. |
| Green open access | Term used when the Author Accepted Manuscript of an article is deposited into a subject-based repository or an institutional repository. |
| Gold open access | Term used when the Version of Record is published in an open access journal with an open licence, where the publisher of the journal provides free and immediate online access to the full content of the journal. The publisher may charge an Article Processing Charge. |
| Hybrid journal | A journal that charges an article processing charge for an individual journal article to be made open access in an otherwise subscription journal. |
| Immediate Open Access | At the time of first online publication, that is, without any embargo period, regardless of whether that publication is an advanced or early online publication or the Version of Record. |
| Indigenous Cultural and Intellectual Property | Refers to all aspects of Indigenous peoples' cultural heritage, including the tangible and intangible. This cultural heritage includes all traditional and cultural knowledge (sciences, plant and animal knowledge, stories, designs and symbols, ritual knowledge, literature and language), cultural objects (including, but not limited to, arts, crafts, ceramics, jewellery, weapons, tools, visual arts, photographs, textiles and contemporary art practices), performances (ceremonies, dance and song), human remains, the secret and sacred (including sites) and documentation of Indigenous heritage. |
| Indigenous knowledge | Indigenous peoples have developed a close and unique connection with the country and environments in which they live. They have established distinct systems of knowledge, innovation and practices relating to the uses and management of biological diversity on country and environments. Much of this knowledge forms an important contribution to research and development, particularly in areas such as pharmaceuticals, agriculture and cosmetic products. |

| Term | Definition |
|---|---|
| Intellectual Property | Intellectual Property is the property of your mind or proprietary knowledge. It is a productive new idea you create. This can be an invention, trademark, design, brand or even the application of your idea. (IP Australia, www.ipaustralia.gov.au) |
| Metadata | Underlying information that describes other data, such as a publication or research dataset. It generally helps the user to understand what the data are, where they can be found and how they can be used. They may include (but are not limited to) NHMRC grant IDs, funding source(s), Digital Object Identifiers (DOI), author(s), author ORCIDs, publisher(s), title, volume number, issue, date of publication, page number(s), type of research output, ISBN/ISSN/other standard number, licence type, access and rights information, and other details such as experimental conditions or project descriptions that will help the user. |
| NHMRC-funded research | Research activity that is funded in whole or in part under an NHMRC funding scheme. |
| Open access | Refers to the availability of research outputs via the internet, such that any user can find, freely access, read, share and reuse the research output. Sharing and reuse is facilitated through open licensing. |
| Open licensing | Use of free licences (usually Creative Commons licences) that let the owner of a work indicate clearly under what conditions the work can be reused and shared, and that reuse requires full and proper attribution. |
| Original research | Original research is the creation of new knowledge and/or the use of existing knowledge in a new and creative way so as to generate new concepts, methodologies, inventions and understandings. This could include synthesis and analysis of previous research to the extent that it is new and creative. |
| Ownership (regarding Indigenous cultural and Intellectual Property) | Ownership is a complex matter and should not be confused with Intellectual Property or confined to a legally recognised right to possession and exclusive use of land or a thing. Ownership of Indigenous cultural and Intellectual Property may be shared or communal and may arise through traditional use or occupation. It may extend to the tangible or intangible (e.g. 'heritage'). |
| Patent | An Intellectual Property right granted for any device, substance, method or process that is new, inventive and useful. (IP Australia, www.ipaustralia.gov.au). |

| Term | Definition |
|---|---|
| Peer review | A process involving at least two expert reviewers who observe the Committee On Publication Ethics (COPE) *Ethical guidelines for peer reviewers* and do not have a conflict of interest with the author(s) of the publication. The peer review process can be conducted by journals or by journal-independent initiatives. |
| Predatory publications | Publishing practices or publications where manuscripts are accepted for publication and authors' fees are accepted without following usual publication best practices, including peer review and editorial oversight. |
| Preprint | A complete and public draft of a scientific document, yet to be certified through peer review, which has been made available on a publicly accessible platform.<br><br>A preprint may be:<br><br>• available in a recognised scientific public archive or repository such as arXiv, bioRxiv, medRxiv, Peer J Preprints and F1000 Research<br>• searchable via a digital object identifier (DOI); for preprints that are incrementally updated as work progresses, each version should have a unique DOI. |
| Publication | Peer-reviewed articles and peer-reviewed conference papers, either the Author Accepted Manuscript or the Version of Record. |
| 'Read and publish' agreement | Contracts negotiated between institutions (libraries, national and regional consortia) and publishers where institutions pay for both 'read' access to specified journals and for academics to 'publish' in those journals. These agreements may be known as transformative agreements when they aim to transform the business model underlying journal publishing, moving from one based on subscriptions to one in which the journals are fully open access, in which publishers are remunerated a fair price for their open access publishing services. |
| Repository | An online repository that is publicly accessible in which the metadata of publications/data and the publications/data themselves can be stored, managed and preserved for the long term. A repository may be hosted by a research institution (institutional), subject based or general purpose. |
| Research data | Includes data and information partially or entirely generated by, collected or accessed for, or used in NHMRC-funded research. |
| Subscription/closed journal | A journal where the articles are protected by copyright and are generally only available to subscribers of the journal (pay to read). None of the content of a subscription/closed journal is open access. |

| Term | Definition |
| --- | --- |
| Traditional knowledge | Refers to the knowledge, innovations and practices of Indigenous and local communities around the world. Developed from experience gained over the centuries and adapted to the local culture and environment, traditional knowledge is transmitted orally from generation to generation. It tends to be collectively owned and takes the form of stories, songs, folklore, proverbs, cultural values, beliefs, rituals, community laws, local language and agricultural practices, including the development of plant species and animal breeds. |
| Transformative agreement | See *'Read and publish' agreement*. |
| Version of Record | The peer-reviewed, edited, formatted and typeset version of the article, including any tagging, indexing and other enhancements from a publisher. It includes any post publication corrections made by a publisher. |

# Abbreviations

Abbreviations used in this Policy are listed in Table 2.

**Table 2.**    Abbreviations

| Abbreviation | Meaning |
|---|---|
| APC | Article processing charge |
| IP | Intellectual Property |
| NHMRC | National Health and Medical Research Council |

# Introduction

NHMRC supports transparency in research, where research findings, supporting data and enabling methodologies are shared and communicated openly, responsibly and accurately in a way that maximises their benefit to health. These principles are outlined in the *Australian Code for the Responsible Conduct of Research* and *NHMRC's Research Quality Strategy*. The aims of NHMRC's Open Access Policy are to mandate the open access sharing and use of publications arising from NHMRC-funded research. This Policy also encourages innovative open access to research data and requires that patents resulting from NHMRC funding be made findable through listing in Source IP.

Combined, these approaches will help to increase the dissemination and improve accessibility of research, increase reuse of research data, improve research integrity and contribute to a stronger knowledge economy. Open access assists with reporting and demonstrating research achievement, supports track record assessment processes and contributes to better collaborations.

All recipients of NHMRC grants must comply with all elements of this Policy. The Policy applies to research that has been funded in whole or in part through an NHMRC grant (either during the award or after the funding period has ended). The NHMRC Funding Agreement and Deeds of Agreement with the Administering Institution describes the responsibilities of Administering Institutions, which include complying with the Policy. Researchers must work with the Administering Institution to ensure that the requirements of this Policy are met.

The policy is consistent with the Australian Government's commitment to open access, open data and Intellectual Property (IP) management. This Policy is also aligned with the global open access movement where funding bodies, international organisations, governments and institutions have implemented open access policies or guidelines. The Policy supports the intent of the F.A.I.R. Access to Australia's Research Statement.

Researchers and Administering Institutions are required to follow the principles of responsible research conduct and fulfil the responsibilities outlined in the *Australian Code for the Responsible Conduct of Research* in all areas of research. The guidance provided in the *Ethical conduct in research with Aboriginal and Torres Strait Islander Peoples and communities: Guidelines for researchers and stakeholders (2018)* and *Keeping research on track II (2018)* must also be followed in research involving Aboriginal and Torres Strait Islander people and communities.

NHMRC encourages Administering Institutions to have or develop an institutional open access policy consistent with this Policy that addresses open access to both publications and data. NHMRC also encourages Administering Institutions to consider rewarding open access practices as part of their recruitment, evaluation and promotion processes.

## Applicability of this Policy

The Policy provides principles and guidance about open access for the following types of research outputs:

- Publications (Part 1)
- Research data (Part 2)
- Patents (Part 3).

# Implementation of this Policy

All recipients of NHMRC grants must comply with all elements of the NHMRC Open Access Policy. The implementation dates for Part 1: Publications of this Policy are shown in Table 3.

**Table 3.** Implementation dates for Part 1: Publications of this Policy

| NHMRC grants | Implementation date | Additional information |
|---|---|---|
| New grants | Immediately | All publications produced from NHMRC grants awarded under Grant Opportunity Guidelines issued on or after 20 September 2022. |
| All other NHMRC grants | 1 January 2024 | All publications produced up to 31 December 2023 must be made open access in a repository or other acceptable location within a 12-month period from the date of publication. This is consistent with the previous version of NHMRC's Open Access Policy (November 2018; updated April 2020). |

# 1.  Publications

## 1.1  Introduction

The Australian Government makes a major investment in health and medical research to improve the health and wellbeing of society. To maximise the benefits of NHMRC-funded research, publications resulting from such research activities must be disseminated as broadly as possible and at the earliest possible opportunity to allow access by other researchers and the wider community.

## 1.2  Policy

All peer-reviewed publications that are supported in whole or in part by NHMRC must be:

- made immediately open access, that is, without any embargo period at the time of first online publication, regardless of whether that publication is an advanced or early online publication or the Version of Record.

- published with a Creative Commons Attribution 'CC BY' licence (see Section 1.3.3). Use of this open licensing ensures that authors retain rights to their publications whilst providing a broad licence that grants public permission for use of the work.

Metadata for publications that are supported in whole, or in part, by NHMRC, must be made open access in an institutional repository as soon as possible, but no later than three months after publication.

### 1.2.1  Application

In this Policy, 'publications' refers to peer-reviewed articles and peer-reviewed conference papers that report on original research, either the Author Accepted Manuscript or the Version of Record.

> ### Original research
>
> Original research is the creation of new knowledge and/or the use of existing knowledge in a new and creative way so as to generate new concepts, methodologies, inventions and understandings. This could include synthesis and analysis of previous research to the extent that it is new and creative.[1]

NHMRC also encourages authors of scholarly books, scholarly book chapters and edited research books, including prestigious reference works, and producers of other forms of research outputs to make them open access where possible.

*Preprints*

This Policy does not apply to preprints. However, NHMRC welcomes the availability of preprints to facilitate early access to research outcomes and encourages the posting of preprints on preprint servers with open licensing.

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[1] Based on the definition of 'research' in the *Australian Code for the Responsible Conduct of Research 2018*. National Health and Medical Research Council, Australian Research Council and Universities Australia. Commonwealth of Australia, Canberra. Available from: www.nhmrc.gov.au/about-us/publications/australian-code-responsible-conduct-research-2018

## 1.3 Guidance for implementation

### 1.3.1 Routes to compliance

Researchers may comply with this Policy through one of two routes.

*Route One: Version of Record open access (journal-based open access)*

Making the Version of Record immediately open access with a CC BY licence.

This route can be used when an article is being published in an open access journal.

This route may be associated with the payment of a fee or article processing charge (APC). The APC may be paid directly by the author or institution or may be covered by a formal agreement between an institution or group of institutions and a publisher (for example, a 'read and publish' or transformative agreement).

This route may be described as 'gold' or 'diamond' open access depending upon the business model of the journal (see Section 4.1.2).

*Route Two: Author Accepted Manuscript open access (repository-based open access)*

Making the Author Accepted Manuscript immediately open access with a CC BY licence by depositing the Author Accepted Manuscript in an open online repository such as an institutional or other subject-based repository.

This route is sometimes called 'green' open access. There is no fee or APC associated with this route.

This route can be used when an article is being published in a subscription/closed journal with no open access option.

When using this route:

- The author must use the following statement when submitting the manuscript for publication: 'This research was funded in whole or part by the National Health and Medical Research Council [Grant number]. For the purposes of open access, the author has applied a CC BY public copyright licence to any Author Accepted Manuscript version arising from this submission'.

  This ensures that licensing arrangements are in place prior to any publishing agreement.

- A publisher-requested delay or 'embargo period' for the Author Accepted Manuscript does not meet the requirements of this Policy and should be refused.

For an institutional repository, authors should contact the repository manager, library or research office to obtain instructions on how to deposit the publication and the publication metadata in the repository, as practices may vary.

> ### Various routes to achieving open access for publications
>
> NHMRC recognises the valuable contribution provided by all routes to achieving open access to publications. NHMRC appreciates that many people, organisations and companies have committed time and resources to developing the various routes now available to researchers. NHMRC has no preferred route for open access and respects a diversity of approaches. For further information about types of open access, see Section 4: Resources.

### 1.3.2    Choosing where to publish

NHMRC acknowledges that authors consider a wide range of factors when deciding on the best outlets for publications arising from their research to maximise the impact of their work and further dissemination and production of knowledge. The decision to publish in particular formats and journal titles is therefore the decision of authors. Authors are strongly encouraged to consider whether the principles of open access apply to their publication location of choice. Authors should also be aware of questionable or unscrupulous practices, such as 'predatory' publishing or publications, and avoid publishing in such journals. Additional information to assist authors when considering where to publish their work is provided in Section 4.1.3: Resources.

### Author choice

Under this Policy, authors have the freedom to submit manuscripts to their publication location of choice, including subscription journals. There are no limits on where authors can submit manuscripts.

*Non-compliant publishing sites*

Scholarly communications networks (e.g. ResearchGate, Academia.edu) are social networking platforms and are not acceptable repositories for the purposes of this Policy as they may not provide the appropriate support for long-term storage, curation and/or rights retention through open licensing (CC BY).

While this Policy fosters full open access to publications for the future, NHMRC does not support the posting of publications on 'pirate' sites, that is sites that provide free access to paywalled journal articles without regard to copyright.

### Hybrid journals

'Hybrid' journals require the payment of an article processing charge (APC) for an individual journal article to be made open access in an otherwise subscription journal. Unless these journals are included as part of a formal agreement between an institution or group of institutions and a publisher (for example, a 'read and publish' or a transformative agreement), hybrid journals do not meet the intent of this Policy.[2]

### 1.3.3    Licensing

Open access is about more than a publication being freely available to read, it also needs to be free to reuse and share. Open licensing allows freely available research outputs to be legally shared and reused.

Whichever route an author takes to comply with this Policy, a least one of the Author Accepted Manuscript or Version of Record must be free to read and licensed with a Creative Commons Attribution 'CC BY' licence. For publications about research involving Aboriginal and Torres Strait Islander people and communities, Indigenous attribution must be considered (see Section 1.3.4).

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[2] NHMRC is aware of the dynamic and complex nature of arrangements involving hybrid journals in Australia. NHMRC will continue to monitor this situation and consider how it may affect implementation of this Policy.

*About the CC BY licence*

CC BY is an internationally accepted licence widely used in scholarly publishing. It removes barriers to reuse of research outputs, such as uncertainty about how information can be used or the need to seek permission, while preserving the moral rights of authors in line with established scholarly norms. It ensures proper attribution to the author(s) and allows the **publication** to be:

- freely available to use and share

- copied and redistributed in any medium or format

- adapted, transformed, remixed and built upon.

*Intellectual Property*

Licensing of a publication to allow sharing and reuse of the publication is separate to protection of Intellectual Property which is managed through other mechanisms such as patents.

*Third-party materials*

These licensing requirements do not apply to any materials included within a publication that are provided by third-party copyright holders. Publications with a CC BY can include third-party materials (such as images, photographs or maps) that are subject to a more restrictive licence. NHMRC considers this approach compliant with this Policy.

### 1.3.4 Research involving Aboriginal and Torres Strait Islander people and communities

This section provides additional guidance for publications arising from research involving Aboriginal and Torres Strait Islander people and communities. This section must be read in conjunction with other guidance about the conduct of research involving Aboriginal and Torres Strait Islander people and communities (see Section 4.1.6: Resources). Researchers must remain up to date with current requirements.

Aboriginal and Torres Strait Islander people and communities have the right to assert and retain ownership of the cultural and Intellectual Property as part of the conduct of research.[3,4,5] For publications arising from NHMRC-funded research involving Aboriginal and Torres Strait Islander people and communities, researchers must consider the following actions, which demonstrate commitment to the values of justice, equity, respect and responsibility, and the principles of Aboriginal and Torres Strait Islander self-determination and leadership, sustainability and accountability:[3,4,5,6]

- discussing ownership, management, use of, access to, and distribution of research results at the start of a research project and formalising this in a written research agreement

- sharing of Intellectual Property rights for the publication

- sharing of copyright for the publication

- co-authorship on the publication

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[3] National Health and Medical Research Council. Ethical conduct in research with Aboriginal and Torres Strait Islander Peoples and communities: Guidelines for researchers and stakeholders. Available from: www.nhmrc.gov.au/about-us/resources/ethical-conduct-research-aboriginal-and-torres-strait-islander-peoples-and-communities

[4] Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS). AIATSIS Code of Ethics for Aboriginal and Torres Strait Islander Research. Available from: https://aiatsis.gov.au/research/ethical-research

[5] Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS). A Guide to applying the AIATSIS Code of Ethics for Aboriginal and Torres Strait Islander Research. Available from: https://aiatsis.gov.au/research/ethical-research

[6] National Statement on Ethical Conduct in Human Research (2007) – Updated 2018. Available from: www.nhmrc.gov.au/about-us/publications/national-statement-ethical-conduct-human-research-2007-updated-2018

- using [Traditional Knowledge Notices](#) in publication metadata

- encouraging the use of [Traditional Knowledge labels](#) in publication metadata by Aboriginal and Torres Strait Islander communities and local organisations

- recognising and acknowledging the individual and collective contribution of Aboriginal and Torres Strait Islander people and communities (e.g. through acknowledgement in final reports, publications and/or presentations)

- adopting a more restrictive Creative Commons licence if and as appropriate, such as the [Creative Commons Attribution No-derivatives licence (CC BY-ND)](#)[7]

- contributing to the [Indigenous Knowledge Exchange](#) platform managed by the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS).

### 1.3.5 Use of NHMRC funding to pay Open Access publication costs

When researchers apply for research funding, it is not possible to predict where and how knowledge translation and knowledge transfer of their work will occur (because the research is yet to be undertaken). Thus, the costs of publications and open access are not to be included as Direct Research Costs (DRCs) in grant application budgets. However, over the grant lifetime, **funds can be used to support costs associated with publications and open access such as article processing charges**, which are the result of the research activity and which are in accordance with the DRC Principles.[8]

NHMRC notes that not all routes to open access require payment of a fee and recommends that authors consider this factor when deciding where to publish their work. NHMRC also recognises the role of transformative agreements in achieving a sustainable and cost-effective transition to open access for the research sector.

### 1.3.6 Collaborative projects

All NHMRC-funded research must comply with this Policy, as outlined in the respective grant funding agreement. If researchers collaborate with researchers funded by other funding bodies with differing policies, they should be aware of any obligation to comply with the partner funding agency requirements. This may require consultation with the partner researcher(s) and/or funding agency. Compliance with this Policy should be discussed when establishing a research collaboration to ensure that all parties, including those associated with another funding agency that may not have an open access policy similar to this NHMRC Policy, are aware of the responsibilities of NHMRC-funded researchers.

## 1.4 Compliance monitoring

NHMRC will monitor the implementation of this Policy to assess compliance of Administering Institutions and researchers and to evaluate the efficiency and effectiveness of the Policy and progress towards open access. This monitoring process will also assess any unintended consequences such as impacts upon early- and mid-career researchers. Initial monitoring will involve assessing institutional support for researchers to comply with this Policy (e.g. policies, provision of assistance and infrastructure). Further details will be provided on NHMRC's website as the monitoring process is developed.

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[7] Use of a more restrictive Creative Commons licence for research involving Aboriginal and Torres Strait Islander people and communities is an allowable exception to the otherwise mandatory use of the fully open Creative Commons Attribution licence (CC BY) for NHMRC-funded research. Express permission or approval from NHMRC is not required.

[8] NHMRC Direct Research Costs Guidelines. Available from: [https://www.nhmrc.gov.au/funding/manage-your-funding/funding-agreement](https://www.nhmrc.gov.au/funding/manage-your-funding/funding-agreement)

# 2. Research data

## 2.1 Introduction

Making research data available in a timely and responsible way maximises the benefit that can be derived from NHMRC-funded research by ensuring other researchers can verify the data, build on it and use it to advance knowledge and make health improvements.

## 2.2 Policy

NHMRC strongly encourages researchers to consider the reuse value of their research data and to take reasonable steps to share research data and associated metadata arising from NHMRC-funded research.

## 2.3 Guidance for implementation

Researchers are encouraged to adhere to the F.A.I.R. (Findable, Accessible, Interoperable and Reusable) Principles and CARE Principles for Indigenous Data Governance.

The research data and metadata should be deposited in a well curated, openly accessible data repository. The repositories should facilitate access to the data and manage any necessary approval processes that take into account any sensitivities associated with the data or metadata. The data should be licensed with a suitable open licence, such as Creative Commons Attribution 'CC BY' licence. The infrastructure and mechanisms for data sharing may be available through individual institutions, government repositories (e.g. www.data.gov.au), international repositories (e.g. Dryad), established networks (e.g. Population Health Research Network) or nationwide registry and data organisations which offer varying levels of support (e.g. Research Data Australia).

A data sharing statement should be provided in publications indicating how to access the underlying data or to request legitimate access to mediated access data. Conditions for access should also be made clear in the metadata of a deposited dataset.

NHMRC acknowledges that sharing certain types of data may be complex. An example would be sharing of clinical trial data due to the length of clinical trials, the types of data collected in clinical trials and the governance of the data. NHMRC therefore encourages researchers to share clinical trial data and associated metadata as soon as possible after publication provided that all ethical, regulatory and legal obligations are fulfilled. In order for the data to be of value to other researchers and for proper analyses to be conducted, the analytical techniques, assumptions, software and other details relevant to the clinical trial should also be shared alongside the data.

Sensitive data or information subject to privacy legislation (e.g. identifiable human medical/health and personal data or information) may be appropriately shared through mediated access arrangements and the application of a risk assessment framework, which may include data treatments such as anonymisation. Researchers must ensure that the security and privacy measures that are used for research data are proportional to the risks associated with the confidentiality or sensitivities of these data. These measures relate to storage, access and sharing of the data and information and should be recorded in a data management plan.

If relevant, researchers must adhere to the requirements relating to the sharing of data in the *Defence Trade Controls Act (2012)*. Detailed requirements can be obtained from the Defence Export Controls Office and checked online using the Defence and Strategic Goods List online tool.

Sharing of data is crucial during public health emergencies. Public health emergencies are special cases where rapid data sharing may be necessary to enable an effective response to a crisis.

### 2.3.1 Data management

Data sharing requires an overall strategy for managing data from the conception and planning stages of all projects. It is important to take into account ethical and legal aspects of the data before making a decision to share data. When sharing research data, researchers must also consider the appropriate level of access that they would like to provide to users. The level of access may range from highly restricted (e.g. commercial in confidence, patient level, culturally sensitive, national security) to fully open access. Administering Institutions should have policies to guide researchers through this process.

NHMRC strongly encourages researchers to develop a data management plan at the start of each research project, as a matter of best practice. Data management plans should consider collection, curation, quality assurance, storage, preservation and dissemination in an appropriate manner. Planning for well-managed data collections before the project commences will facilitate making the data findable, accessible, interoperable and reusable.

In order to maximise the usefulness of data and information collected from human biospecimens resulting from NHMRC-funded research, NHMRC encourages researchers to use the broadest consent that appropriately considers the codes, laws, ethics and cultural sensitivities of the community in which the research is to be conducted.

### 2.3.2 Metadata

When sharing data, researchers must ensure that appropriate metadata accompany the datasets. This will allow users of the data to fully understand the data, the curation strategies, assumptions, experimental conditions and any other details relevant to the interpretation of the data.

Via its Funding Agreement, NHMRC requires that all metadata arising from NHMRC-funded research must be listed in the Final Report for each Project. This includes datasets created prior to the due date for the Final Report that have been lodged in a repository.

### 2.3.3 Data citation

Researchers who use shared data must acknowledge the data owner(s) and provide a citation to the data source.

# 3. Patents

## 3.1 Introduction

NHMRC encourages researchers to develop best practice in identifying, managing and protecting Intellectual Property (IP).

In 2013, the *National Principles of IP Management for Publicly Funded Research* were released by the Australian Government to "*provide guidance for the ownership, promotion, dissemination, exploitation and, where appropriate, protection of IP generated through Australian Government funded research by public sector institutions*".

Source IP is a database developed to facilitate innovation and commercialisation by providing a mechanism for public sector patent holders to showcase their licensing intent and/or promote their work in an integrated format. It also facilitates more efficient and accurate access to such information, as the data are managed from a single source. Source IP is particularly focussed on making it easier for Australian businesses, including small businesses, to access innovation and technology generated by publicly funded research in Australia. The platform has been created to help expose potential collaboration opportunities to businesses seeking to work with public sector research partners and to facilitate contact.

## 3.2 Policy

NHMRC:

- requires NHMRC Administering Institutions to be listed as 'Research Organisations' with Source IP and to list Australian-filed patent publications generated as a result of NHMRC funding on Source IP

- requires that patents listed on Source IP that are associated with NHMRC funding cite the relevant NHMRC Grant ID in the description on Source IP

- encourages institutions to make available the IP Toolkit where collaborative research arrangements with business are involved.

## 3.3 Guidance for implementation

Guidance about listing patents on Source IP is available on the Source IP website.

# 4. Resources

## 4.1 Publications

### 4.1.1 General

| Topic | URL |
|---|---|
| cOAlition S | www.coalition-s.org |
| Committee on Publication Ethics (COPE) | https://publicationethics.org |
| Committee on Publication Ethics (COPE). Discussion document: Predatory Publishing (2019). | https://publicationethics.org/predatory-publishing-discussion-document |
| Committee on Publication Ethics (COPE). Ethical guidelines for peer reviewers (2013). | https://publicationethics.org/files/Peer%20review%20guidelines.pdf |
| Creative Commons Australia | https://creativecommons.org.au |
| F.A.I.R. Policy Statement | www.fair-access.net.au/fair-statement |
| Journal Article Versions (JAV): Recommendations of the NISO/ALPSP JAV Technical Working Group April 2008 NISO-RP-8-2008 | www.niso.org/publications/niso-rp-8-2008-jav |
| Open Access Australasia | https://oaaustralasia.org |
| Open Access Australasia. FAQs | https://oaaustralasia.org/faqs |
| Open Access Australasia. What are all the different journal article versions? | https://oaaustralasia.org/2021/03/19/what-are-all-the-different-journal-article-versions |
| Peer review: Journal peer review and journal-independent peer-review (cOAlition S Statement) | https://www.coalition-s.org/statement-onpeer-reviewed-publications/ |
| Plan S | www.coalition-s.org/plan_s_principles |

### 4.1.2 Types of open access

| Topic | URL |
|---|---|
| Types of open access | https://oaaustralasia.org/2021/05/25/what-are-the-different-types-of-open-access |

### 4.1.3    Open access publishing

| Topic | URL |
|---|---|
| Directory of Open Access Journals | https://doaj.org |
| Directory Of Open Access Repositories | https://v2.sherpa.ac.uk/opendoar |
| Read and publish agreements in Australia | https://caul.libguides.com/read-and-publish |
| Registry of Open Access Repositories | http://roar.eprints.org/cgi/search/advanced |
| Think, Check, Submit (tool for assisting researchers to identify trusted journals and publishers for their research) | https://thinkchecksubmit.org |

### 4.1.4    Licensing

| Topic | URL |
|---|---|
| **Creative Commons:** | |
| • What is a creative commons licence? | https://creativecommons.org.au/learn/licences |
| • Understanding the types of creative commons licences | https://creativecommons.org.au/know-your-rights |
| • How to apply a creative commons licence to a piece of work | https://wiki.creativecommons.org/wiki/Marking_your_work_with_a_CC_license |
| • Attribution of work licensed with a creative commons licence | https://creativecommons.org.au/content/attributingccmaterials.pdf |
| • Creative commons: Frequently asked questions | https://creativecommons.org/faq |
| • Creative Commons Australia: Fact Sheets | https://creativecommons.org.au/learn/fact-sheets |
| cOAlition S: The Rights Retention Strategy and publisher equivocation: an open letter to researchers | www.coalition-s.org/the-rrs-and-publisher-equivocation-an-open-letter-to-researchers |

### 4.1.5    Hybrid journals

| Topic | URL |
|---|---|
| Why hybrid journals do not lead to full and immediate open access | www.coalition-s.org/why-hybrid-journals-do-not-lead-to-full-and-immediate-open-access |

### 4.1.6 Research involving Aboriginal and Torres Strait Islander people and communities

| Topic | URL |
|---|---|
| Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS). Code of Ethics for Aboriginal and Torres Strait Islander Research | https://aiatsis.gov.au/research/ethical-research |
| Citing Indigenous Elders and Knowledge Keepers | MacLeod L. 2021. More Than Personal Communication: Templates for Citing Indigenous Elders and Knowledge Keepers. KULA: Knowledge Creation, Dissemination, and Preservation Studies 5 (1). https://doi.org/10.18357/kula.135 |
| ENRICH: Equity for Indigenous Research and Innovation Coordinating Hub | www.enrich-hub.org |
| Indigenous Knowledge Exchange | https://irx.aiatsis.gov.au |
| Information about ethical guidelines for research with Aboriginal and Torres Strait Islander people and communities | www.nhmrc.gov.au/research-policy/ethics/ethical-guidelines-research-aboriginal-and-torres-strait-islander-peoples |
| Local Contexts | https://localcontexts.org |
| National Statement on Ethical Conduct in Human Research (2007) – Updated 2018 | www.nhmrc.gov.au/about-us/publications/national-statement-ethical-conduct-human-research-2007-updated-2018 |
| NHMRC guideline: Ethical conduct in research with Aboriginal and Torres Strait Islander Peoples and communities: Guidelines for researchers and stakeholders (2018) | www.nhmrc.gov.au/about-us/resources/ethical-conduct-research-aboriginal-and-torres-strait-islander-peoples-and-communities |
| NHMRC guideline: Keeping research on track II (2018) | www.nhmrc.gov.au/about-us/resources/keeping-research-track-ii |

### 4.1.7 Open access compliance tools

| Topic | URL |
|---|---|
| cOAlition S: Journal Checker Tool | |
| • Journal Checker Tool website | https://journalcheckertool.org |
| • Journal Checker Tool: Guidance and advice | www.coalition-s.org/blog/unboxing-the-journal-checker-tool |
| Google Scholar profiles and open access compliance | https://scholar.google.com/intl/en/scholar/citations.html#publicaccess |

## 4.2 Data

| Topic | URL |
|---|---|
| Australian Code for the Responsible Conduct of Research, 2018<br>Includes information about management of data and information in research | www.nhmrc.gov.au/about-us/publications/australian-code-responsible-conduct-research-2018 |
| Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS). AIATSIS Code of Ethics for Aboriginal and Torres Strait Islander Research | https://aiatsis.gov.au/research/ethical-research |
| Australian Research Data Commons. Data management plans | https://ardc.edu.au/resources/aboutdata/data-management-plans |
| Australian Research Data Commons. Indigenous data | https://ardc.edu.au/resources/working-with-data/sensitive-data/indigenous-data |
| Australian Research Data Commons. Sensitive data | https://ardc.edu.au/resources/working-with-data/sensitive-data |
| CARE Principles for Indigenous Data Governance | www.gida-global.org/care |
| Carroll SR, Garba I, Figueroa-Rodríguez OL, Holbrook J, Lovett R, Materechera S, et al. The CARE Principles for Indigenous Data Governance. Data Science Journal. 2020;19(1):43. | http://doi.org/10.5334/dsj-2020-043 |
| F.A.I.R. (Findable, Accessible, Interoperable and Reusable) Principles | www.go-fair.org/fair-principles |
| Management of Data and Information in Research: A guide to support the Australian Code for Responsible Conduct of Research, 2018 | www.nhmrc.gov.au/about-us/publications/australian-code-responsible-conduct-research-2018 |
| National Statement on Ethical Conduct in Human Research (2007) – Updated 2018:<br>Chapter 3.1, Element 4: Collection, use and management of data and information | www.nhmrc.gov.au/about-us/publications/national-statement-ethical-conduct-human-research-2007-updated-2018 |
| NHMRC Principles for Accessing and Using Publicly Funded Data for Health Research.<br>A guide to the legislative and governance structure to refer to when accessing datasets from publicly funded research | www.nhmrc.gov.au/about-us/publications/principles-accessing-and-using-publicly-funded-data-health-research |

## 4.3 Patents

| Topic | URL |
|---|---|
| Australian IP toolkit for collaboration | www.ipaustralia.gov.au/tools-resources/ip-toolkit |
| Source IP | https://sourceip.csiro.au |