NLM Public Access Support for Funders



Kathryn Funk, MLIS

PubMed Central Program Manager, NCBI/NLM

HRA Webinar, 2018 June 28

PubMed Central (PMC)

- PMC Submission Methods
 - Manuscript Submission
 - Journal Submission
- Publications, Awards, and Compliance
 - Linking awards to publication in My Bibliography
 - Discovery of funded publications in PubMed and PMC
- Associating Data with Publications

NCBI

Resources for Your Researchers





What is PubMed Central?

1) Journal Archive

- Since 2000
- 2,100 journals currently "participate" in PMC
- Includes current and historical content

2) Funder Repository

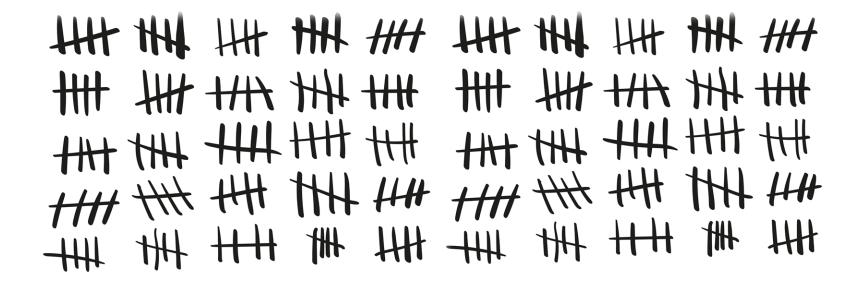
• Since 2005

NCBI

- 13 U.S. funders (in addition to HRA) and ~30 international funders
- Includes author manuscripts and publisher versions of record

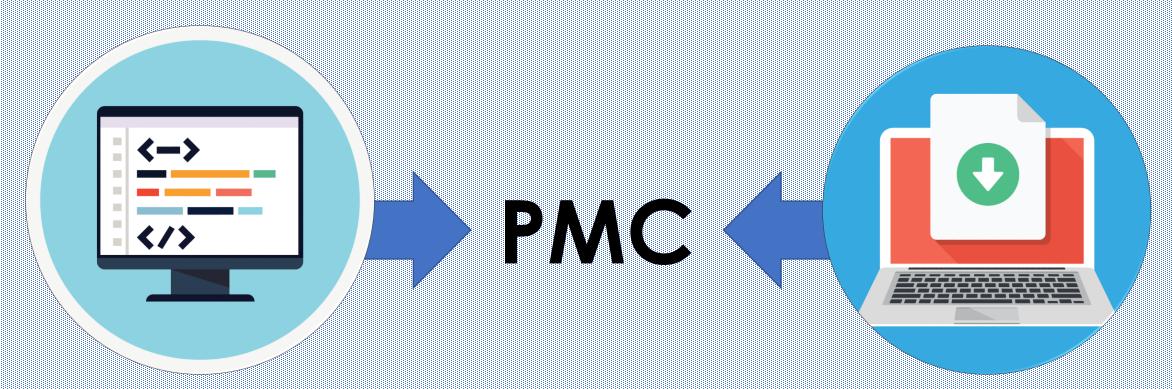
1 billion articles

retrieved from PMC in 2017



https://nlmdirector.nlm.nih.gov/2017/12/19/happy-one-billion-pubmed-central/

How Articles Get Into PMC



Participating Journal

- Publisher-supplied versions of record
- Submitted directly to PMC in XML format

Author Manuscript

- Author-supplied (or approved) peer reviewed version accepted for publication
- Submitted to NIH Manuscript Submission (NIHMS) system in Word/PDF/etc. format

https://www.ncbi.nlm.nih.gov/pmc/about/submission-methods/





Author Manuscript Submission

When to submit?

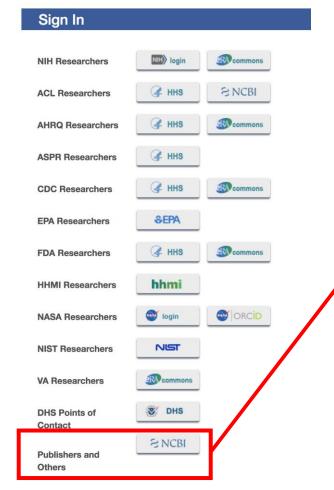
- After a paper is accepted for publication
- <u>After</u> award data updated in HRA Open

Where to submit?

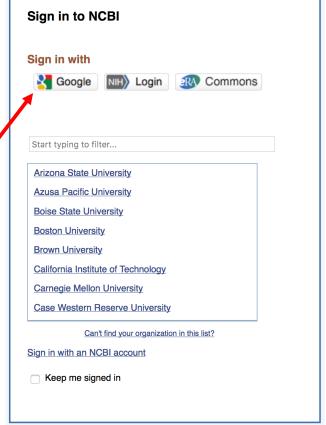
NIH Manuscript Submission System

How to access?

• Via the "Publishers and Others" NCBI sign in route



Manuscript Submission System



https://www.nihms.nih.gov

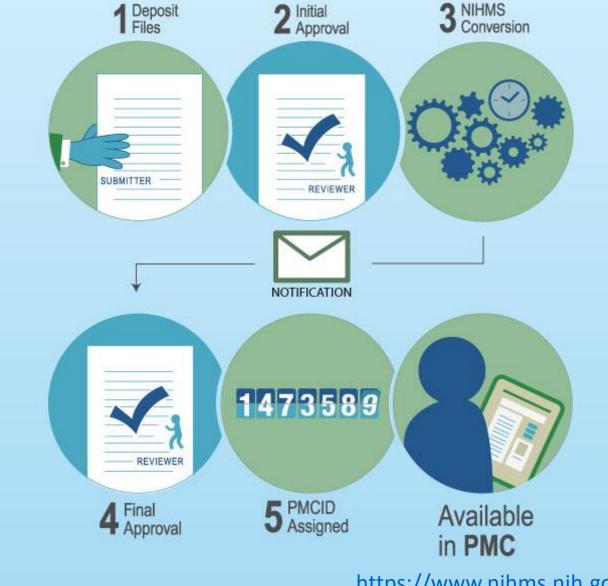


Author Manuscript Submission

... then what?

- NIHMSID (HRAMS) is assigned at time of deposit This is also when award data is added.
- Awardee signs off on initial deposit
- Manuscript converted to PMC (XML) format
- 4. Awardee reviews PMC-ready version
- PMCID assigned

NIHMS Process



NCBI



with high medical and social costs. AF is complicated for patients because of its specialised terminology,

long-term adherence, symptom monitoring, referral to specialty care, array of potential interventions and

NCBI

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5953540/ PMC US National Library of Medicine Advanced Journal list National Institutes of Health Journal List > eLife > v.7; 2018 > PMC5953540 Recent content About eLife For authors Sign up for alerts eLife. 2018; 7: e33953. PMCID: PMC5953540 Published online 2018 May 15. doi: 10.7554/eLife.33953 PMID: 29761785 Discovery and characterization of a prevalent human gut bacterial enzyme sufficient for the inactivation of a family of plant toxins Nitzan Koppel, ¹ Jordan E Bisanz, ² Maria-Eirini Pandelia, ³ Peter J Turnbaugh, ^{2,4} and Emily P Balskus^{1,5} Ruth Emily Ley, Reviewing Editor Ruth Emily Ley, Max Planck Institute for Developmental Biology, Germany; Author information ▶ Article notes ▶ Copyright and License information ▶ Disclaimer Abstract Go to: ✓ Although the human gut microbiome plays a prominent role in xenobiotic transformation, most of the genes and enzymes responsible for this metabolism are unknown. Recently, we linked the two-gene 'cardiac glycoside reductase' (cgr) operon encoded by the gut Actinobacterium Eggerthella lenta to inactivation of

the cardiac medication and plant natural product digoxin. Here, we compared the genomes of 25 E. lenta

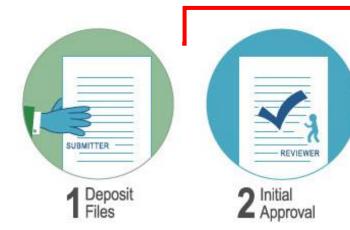
Associating Funding & Tracking Publications in PubMed and PMC



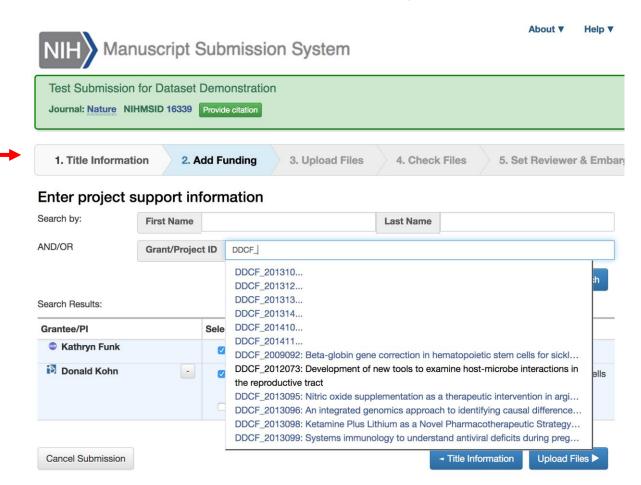


NIHMS

Associating awards with PubMed citations and NIHMS-submitted PMC author manuscripts



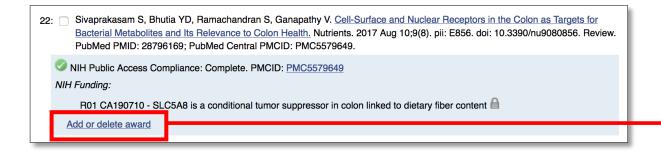
Award / funding data must be associated with a submission to proceed beyond this point in the NIHMS process.





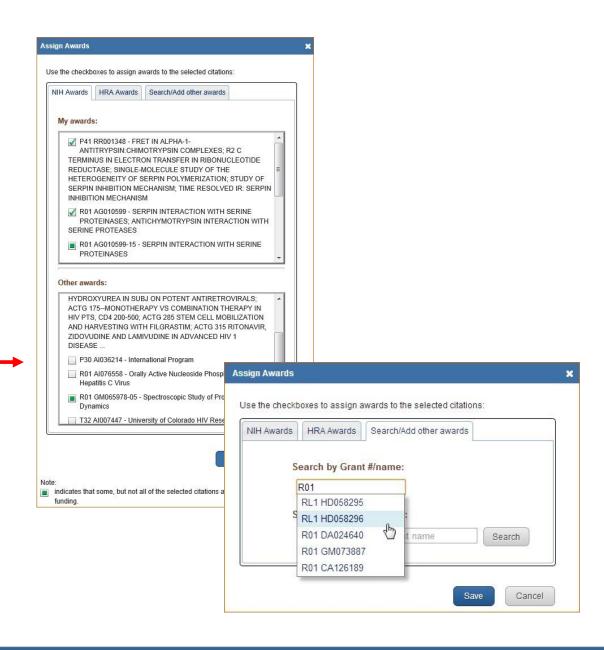
My Bibliography

Associating awards with PubMed citations and Publisher-supplied PMC articles



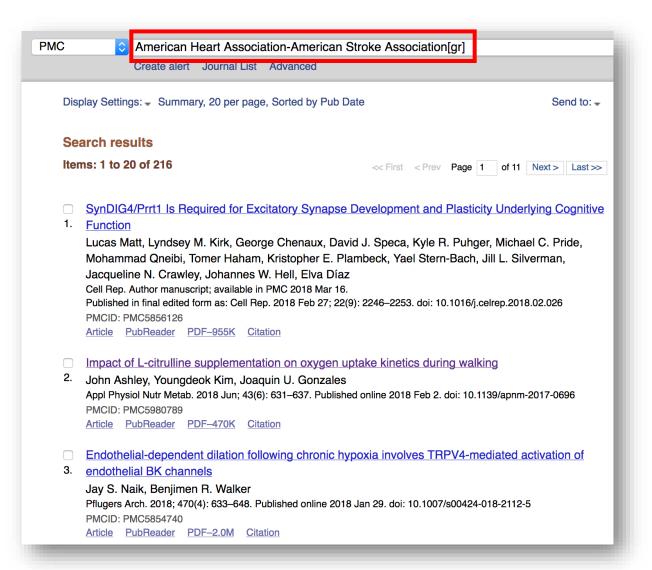
User Tips:

- Access My NCBI via Google
- My NCBI-Google account can be linked to other existing accounts
- An HRA icon should appear at the top of the web page if all the correct steps have been followed



https://www.ncbi.nlm.nih.gov/books/NBK53595/#mybibliography





To see what publications are linked to awards from a given funder, search PMC or PubMed on:

FUNDER NAME[gr]

https://www.nlm.nih.gov/bsd/grant acronym.html#other fund

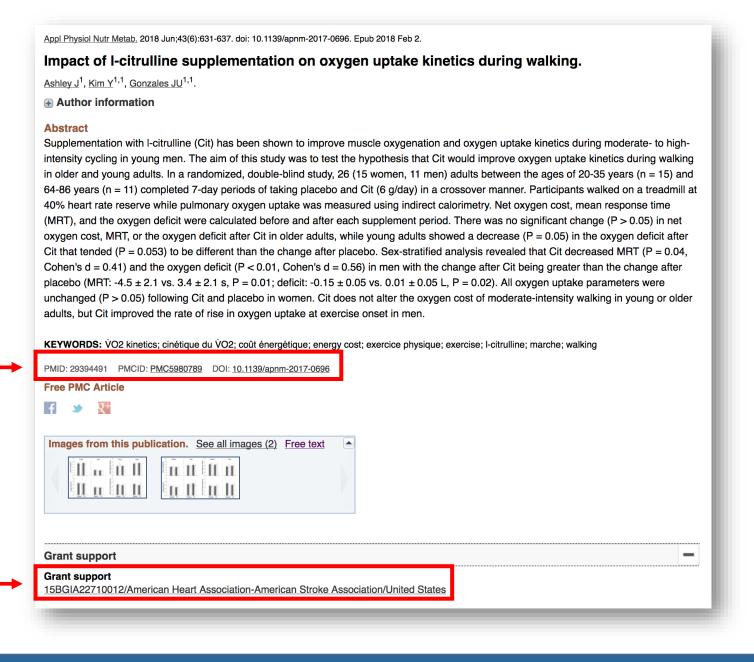
https://www.ncbi.nlm.nih.gov/books/NBK3827/#pubmedhelp.Grant N umber GR

In PubMed...

- You will find any citation that has been associated with a funder's awards
- Not a guarantee that the paper is publicly accessible in PMC

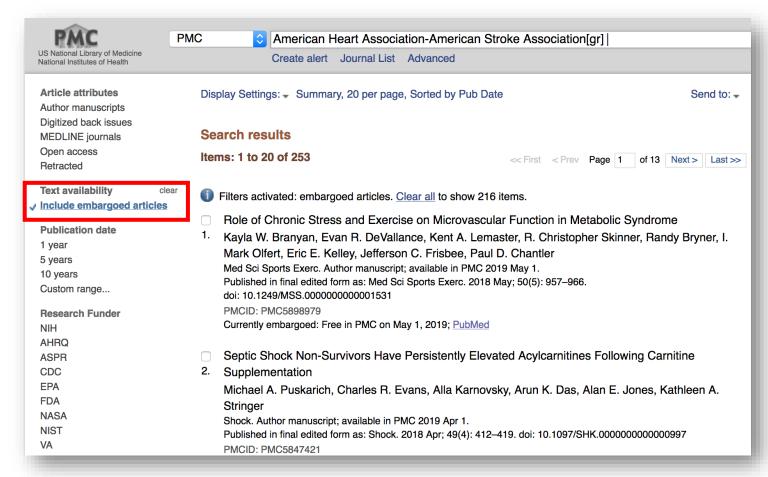
Primary sources of HRA award data:

- NIHMS
- My NCBI My Bibliography

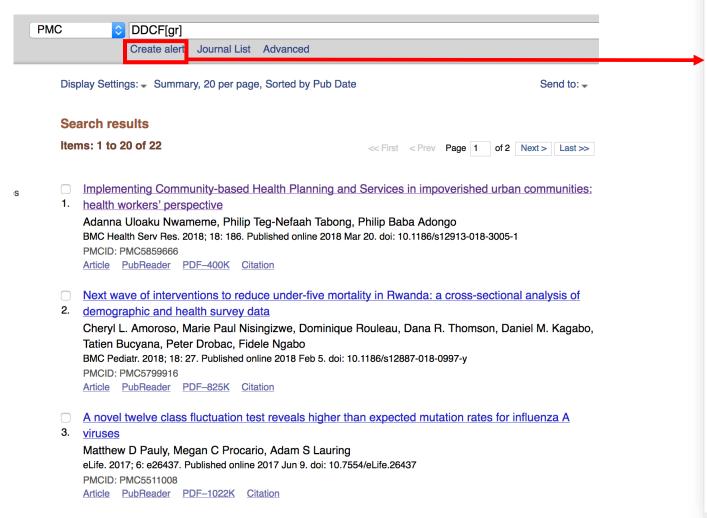


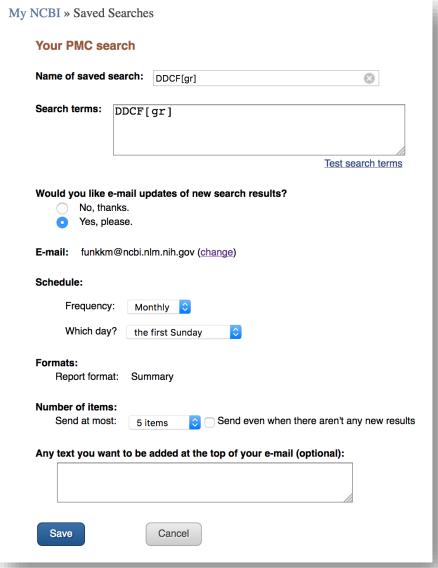
In PMC...

- You will see papers that are publicly accessible by default
- You can include embargoed articles in the search results by using the facet on the lefthand side of the results to get a global picture of the number of compliant papers associated with your awards



Set up alerts to monitor





https://www.ncbi.nlm.nih.gov/books/NBK3830/

Datasets in PMC

Associating data with publications



How do datasets get in to PMC?

Supplementary Material

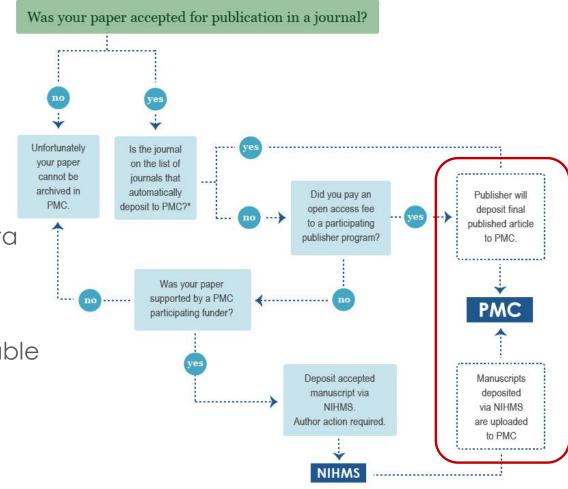
 PMC policy requires all referenced supplementary data files to be deposited with the article or manuscript.

Data Citations

 Authors are also encouraged to make datasets available in a public repository and include the relevant data citation(s) in the paper.

NIHMS Deposit

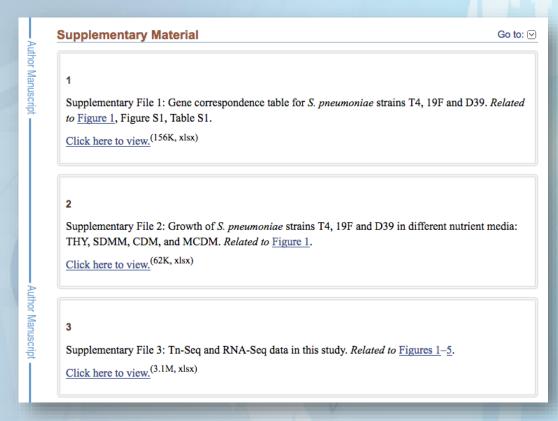
 Funded authors who are required to deposit the author manuscript to PMC can also supply data files at the time of deposit.



https://www.ncbi.nlm.nih.gov/pmc/about/submission-methods/https://www.ncbi.nlm.nih.gov/pmc/about/guidelines/#supplementary

Supplementary Data in PMC

Supplementary Material Section



PMC Search: has suppdata[filter]

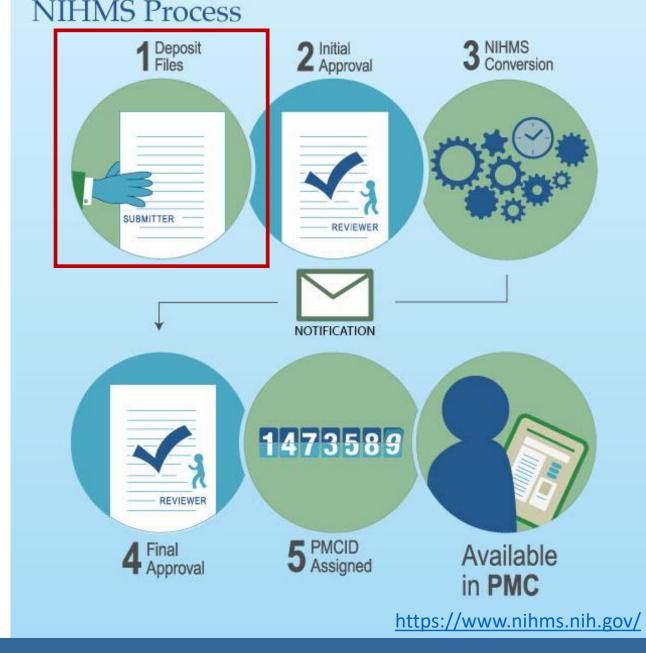
Examples of what you will find in this section:

- Computer code
- Mathematical or computational models
- Audio or video clips
- Oversized tables
- Intervention protocols
- Primary or supplementary data sets
- Expanded methodology sections
- Additional figures

Source: Publication Manual of APA (6th ed.)

Dataset Deposit in NIHMS

- Data files should be supplied with other manuscript files in Step 1 of NIHMS process
- Author must have funding from a PMCparticipating funder to deposit
- NIHMS can accept nearly any file type as supplemental; .doc, .pdf, .xls, .csv, .tiff, .jpg, .eps, .ai, mp4 are the most common types received

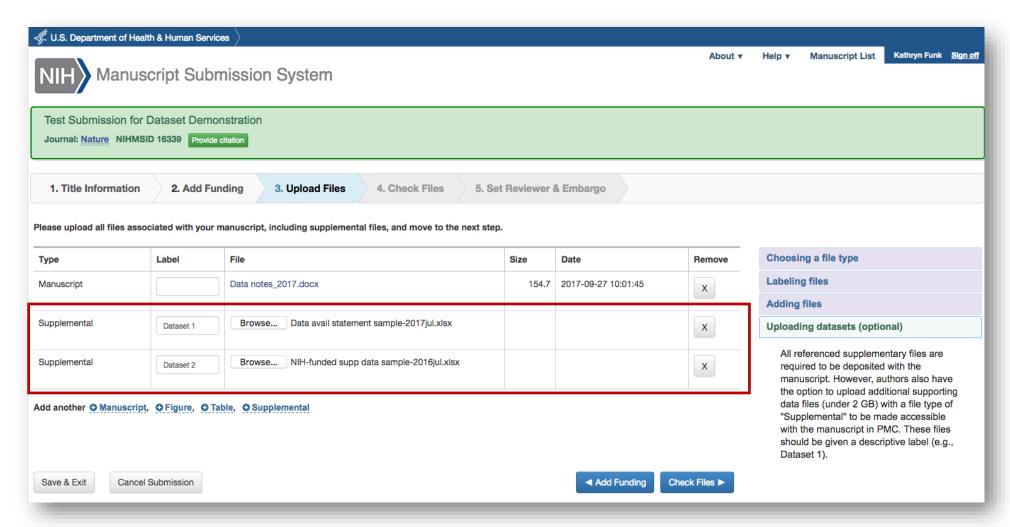


NCBI

Dataset Deposit in NIHMS

NCBI

- Upload as <u>Supplemental</u> file type
- Provide general dataset label (e.g., Dataset 1, Data 2)
- Can provide as many data files as necessary
- Data file(s) must be 2
 GB or less



https://www.nihms.nih.gov/



Data Citations and Statements in PMC

Data Availability Statement

Data Availability

All relevant data are within the paper and its Supporting Information files. Protein structure files were obtained from Protein Data Bank. Protein structure accession and site mapping are listed in S1 Table (https://doi.org/10.6084/m9.figshare.4910141.v2).

Data Citations

Data Citations

- Go to: ⊡
- Ibanez J. M., Australian Antarctic Data Centre. 2017 https://doi.org/10.4225/15/58e6edfc522cf
- Ibanez J. M., Australian Antarctic Data Centre. 2017 https://doi.org/10.4225/15/58e47c1be64b8
- Ibanez J. M., Australian Antarctic Data Centre. 2017 https://doi.org/10.4225/15/58e47c33f2500
- Ibanez J. M.. Australian Antarctic Data Centre. 2017 https://doi.org/10.4225/15/58e580cfe8c95
- Ibanez J. M., Australian Antarctic Data Centre. 2017 https://doi.org/10.4225/15/58e47be626ee5
- Ibanez J. M., Australian Antarctic Data Centre. 2017 https://doi.org/10.4225/15/58e47c03e652a

Examples of what you will find in these sections:

- "Data available upon request"
- References to supplementary material
- NCBI database accession numbers (GEO, GenBank, dbGap, SRA)
- General data repository record DOIs (figshare, Dryad)
- Government data repository links
- Personal servers

Data Citations in PMC

```
S Gavrilov, RP Harvey & VE Papaioannou. Mus musculus T-box 2 (Tbx2), mRNA. NCBI Nucleotide. 2014:NM 009324.2. NM 009324
     <!--Data reference: NCBI Nucleotide: pub-id-type="accession" assigning-authority="NCBI"
     contains version details -->
     <ref id="bib13">
      <element-citation publication-type="data">
        <person-group person-group-type="author">
           <name>
             <surname>Gavrilov</surname>
             <given-names>S</given-names>
           </name>
           <name>
            <surname>Harvey</surname>
             <given-names>RP</given-names>
           </name>
             <surname>Papaioannou</surname>
             <given-names>VE</given-names>
           </name>
        </person-group>
        <year iso-8601-date="2014">2014
        <data-title>Mus musculus T-box 2 (Tbx2), mRNA</data-title>
         <source>NCBI Nucleotide</source>
        <pub-id pub-id-type="accession" assigning-authority="NCBI"</pre>
           xlink:href="http://www.ncbi.nlm.nih.gov/nuccore/120407038"
           >NM 009324</pub-id>
        <version designator="NM 009324.2">NM 009324.2
       </element-citation>
     </ref>
```

"Data citations should facilitate access to the data and any associated metadata, code, or related materials."

> https://www.ncbi.nlm.nih.gov/pmc/pmcdoc/taggingguidelines/article/dobs.html#dob-datacitations

> > http://jats4r.org/data-citations



Tips and Tools for Your Researchers

- Complete HRA Open tasks **BEFORE** using NLM resources
- Always access NLM resources (NIHMS, My Bibliography) via Google **account** the first time (accounts can be linked for subsequent visits)
- Review "How Papers Get Into PMC" guidance to **determine what** submission method applies https://www.ncbi.nlm.nih.gov/pmc/about/submission-methods/
- Familiarize yourself with the two main steps required of authors in the NIHMS submission process https://www.youtube.com/watch?v=IIEBtfnSqMA
- Remember to reserve the right to make your paper available in PMC, acknowledge all supporting awards, and cite data

NCBI



