


# FundRef: Making it work for a small publisher (or at least trying!)

Rob O'Donnell  
Director of Publishing Technologies  
Rockefeller University Press  
odonner@rockefeller.edu

# Why do we care about FundRef?

- Customer service
- Discoverability
- CHORUS

## Why CHORUS?


- Customer service
- All content publicly accessible at 6 months under CC-BY-NA license
- All content deposited to PubMed Central for release 6 months post publication
-  **SHERPA/RoMEO**

RoMEO Colour	Archiving policy
Green	Can archive pre-print and post-print or publisher's version/PDF
- Fully Compliant (*for now*) with OA policies of funding agencies that support research published in RUP journals

Funding Agency	% Articles	Funding Agency	% Articles
National Institutes of Health	~50%	Bill & Melinda Gates Foundation	<1%
National Science Foundation	5-7%	Wellcome Foundation	2-6%
Department of Energy	1-3%	European Research Council	13-20%
Howard Hughes Medical Institute	2-6%		

# How?

## Request data from author on submission

**Funding information** 

Required \*

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Funding body \* - Remove

- Schweizerischer Nationalfonds zur Förderung der  
Wissenschaftlichen Forschung Switzerland
- National Center of Competence in Research Affective  
Sciences - Emotions in Individual Behaviour and Social  
Processes Switzerland
- Tsinghua National Laboratory for Information Science and  
Technology China
- National Research Council for Economics, Humanities and  
Social Science South Korea
- Gyeongnam National University of Science and Technology  
South Korea
- Fonds De La Recherche Scientifique - FNRS Belgium
- Ulsan National Institute of Science and Technology South Korea
- National Commission for Science, Technology and Innovation  
Kenya
- Département Caractérisation et Élaboration des Produits Issus  
de l'Agriculture, Institut National de la Recherche  
Agronomique France
- National Research Institute for Earth Science and Disaster  
Prevention Japan
- National Academy of Sciences of the Republic of Armenia  
Armenia
- National Science Museum South Korea
- National Academy of Sciences, Republic of Korea South Korea
- National Institute for Interdisciplinary Science and Technology  
India

# Why we won't rely on authors at submission

## Request data from author on submission

- Burden on submitting authors
- Most papers won't be accepted
- Requires submitting author to have info at fingertips
- Already included in Acknowledgments
- Publishers cite high error/correction rate
  - 'We are collecting FundRef data [on submission], but it is imperfect. I did some digging after talking with you and it seems even more imperfect than I had realized.'
- How does it get into XML?
- Not available for eXtensible JATS export

# How?

## Manual mining and tagging of acknowledgments

- Precise tagging order to make export work

### *Acknowledgments*

The authors thank René-Marc [Mège](#), Michael Sheetz, Lisa Tucker-Kellogg, [Virgile Viasnoff](#), Evelyn Yim, Ronen [Zaidel-Bar](#), and group members from B. [Ladoux](#) and N.C. Gauthier for helpful discussions; Andrew Wong and other members participated to this project; and Arthur Mark Richards (National University of Singapore). <http://dx.doi.org/10.13039/501100004963> 

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The authors declare no competing financial [interests](#).

1. Use Word hyperlink tool to copy and paste the funder DOI
2. Style funder name
3. Style grant numbers
4. In order for export to work, numbers *must* follow agency name

# How?

## **Manual mining and tagging of acknowledgments**

- Precise tagging order to make export work
- No CrossRef tool to look-up DOI (coming)
- >10,000 line Funder Name csv file
- Copy and paste can lead to errors
- Additions or edits at proof stage require direct XML edit

## **Benefits over collection at submission**

- Trustworthy editors checking and tagging data
- In Word file and available for JATS export

# How?

## **AUTOMATION!**

Automate mining of acknowledgments for funders and grant numbers, having the tool tag the information and our copy editors do a final check, filling in any blanks and querying the author as needed. This could be the best path to publishing accurate data while not burdening the author on submission, and seamlessly getting funder tagging into the article XML.



Automate how?

INERA

# eXtyles FundRef module vision

## **Acknowledgments**

The authors thank René-Marc [Mège](#), Michael Sheetz, Lisa Tucker-Kellogg, [Virgile Viasnoff](#), Evelyn Yim, Ronen [Zaidel-Bar](#), and group members from B. [Ladoux](#) and N.C. Gauthier for helpful discussions; Andrew Wong and other members of the [Mechanobiology](#) Institute who participated to this project; and Arthur Mark Richards (National University of Singapore).

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# eXtypes FundRef module vision

```
<funding-group>
  <award-group id="sp1">
    <funding-source>Seventh Framework Program<named-content content-type="funder-id"
      >http://dx.doi.org/10.13039/501100004963</named-content></funding-source>
    <award-id rid="sp1">FP7/2007-2013</award-id>
  </award-group>
</funding-group>
<funding-group>
  <award-group id="sp2">
    <funding-source>ERC<named-content content-type="funder-id"
      >http://dx.doi.org/10.13039/501100000781</named-content></funding-source>
    <award-id rid="sp2">617233</award-id>
  </award-group>
</funding-group>
<funding-group>
  <award-group id="sp3">
    <funding-source>National Institutes of Health<named-content content-type="funder-id"
      >http://dx.doi.org/10.13039/100000002</named-content></funding-source>
  </award-group>
</funding-group>
<funding-group>
  <award-group id="sp4">
    <funding-source>Ministry of Education<named-content content-type="funder-id"
      >http://dx.doi.org/10.13039/501100001459</named-content></funding-source>
    <award-id rid="sp4">RG75/10</award-id>
  </award-group>
</funding-group>
<funding-group>
  <award-group id="sp5">
    <funding-source>National Medical Research Council<named-content content-type="funder-id"
      >http://dx.doi.org/10.13039/501100001349</named-content></funding-source>
    <award-id rid="sp5">NMRC/CBRG/0002/2012</award-id>
  </award-group>
</funding-group>
```

# eXtypes FundRef module vision

## FundRef Checking Advanced Process

- Module uses pattern recognition to identify possible funder names in Acknowledgment, then looks for a match in the FundRef registry

- Exact match = tag accordingly

```
<funding-source>National Institutes of Health<named-content content-type="funder id">http://dx.doi.org/10.13039/100000002</named-content></funding-source>
```

- Partial match = tag and query with a suggested name (or just query?)

**Comment [ROD3]:** Cannot find unique match on 'ERC'. Should this be 'European Research Council'?

**Comment [ROD3]:** Cannot find unique match on 'National Institute of Health'. Should this be 'National Institutes of Health'?

- No match = query only

**Comment [ROD4]:** 'Powerball' appears to be a cited funder but there is no match in FundRef registry. Please check and re-run FundRef checking if changes are necessary.

Any point in tagging a funder that does not have an ID?

# eXtypes FundRef module vision

## FundRef Checking Advanced Process – award IDs

- Grant numbers identified and styled based on heuristics and regular expressions
- Grant numbers are linked to identified funders
- Query if no grant numbers are found for a cited funder

**Comment [ROD4]:** It appears that there is no award ID cited for funder 'National Institutes of Health'

- Editor recognizes funders or grant numbers that were not styled

## Acknowledgments

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- Upon JATS export, eXtypes generates XML metadata

# eXtyles FundRef module vision

## Proof corrections

- How do we deal with edits and additions in proof?
  - Display funder data in proof
  - Pre-filled FundRef widget?
  - Word roundtrip?
  - Direct XML edit?
  - Let vendor deal with it?
  - Or...

# eXtyles FundRef module vision

fundfix ?

- Available to everyone from individuals to publishers and service providers

<b>Funder Name</b>	<b>Funder ID</b>
National Institutes of Health	http://dx.doi.org/10.13039/100000002

<b>Grant Numbers</b>				
24654069	25287060	26104709		

Or enter text

Structure funding data →

## Result

```
<funding-group>
  <award-group id="apl">
    <funding-source>National Institutes of Health<named-content
      content-type="funder-id"
      >http://dx.doi.org/10.13039/100000002</named-content></funding-source>
    <award-id sid="apl">24654069</award-id>
    <award-id sid="apl">25287060</award-id>
    <award-id sid="apl">26104709</award-id>
  </award-group>
</funding-group>
```

<b>Funder Name</b>	<b>Funder ID</b>

<b>Grant Numbers</b>				

Or enter text

R. Laverde was supported by National Institutes of Health grants 24654089, 25287060, and 26104709

Structure funding data →

## Result

```
<funding-group>
  <award-group id="apl">
    <funding-source>National Institutes of Health<named-content
      content-type="funder-id"
      >http://dx.doi.org/10.13039/100000002</named-content></funding-source>
    <award-id sid="apl">24654069</award-id>
    <award-id sid="apl">25287060</award-id>
    <award-id sid="apl">26104709</award-id>
  </award-group>
</funding-group>
```

- Can run outside of proofing system or as web service
- Can provide a boost to FundRef and CHORUS growth

## Additional notes

- Tagging changes in JATS 1.1D3 <institution-wrap> and <institution-id>
- FundRef is not without costs
  - eXtyles module
  - Vendor pricing



Rob O'Donnell  
Director of Publishing Technologies  
Rockefeller University Press  
odonner@rockefeller.edu