Scholarly Communications

Jean Song
Assistant Director, Taubman Health Sciences Library
What is Scholarly Communications?

- In general, the dissemination of scholarly work
- In practice, includes the entire lifecycle of scholarly work: creation, publishing, preservation
- For today it means
  - Data management
  - Public and Open Access
  - Publishing
  - Measuring Impact
Data Management
Data Management

● Creation
  ○ Data Management planning
  ○ Data sharing mandates

● Dissemination and Preservation
  ○ Deep Blue - UM’s Institutional Repository
  ○ NIH data sharing repositories
  ○ Clinical trials
  ○ Data Office for Clinical and Translational Research
Data Management Planning

● Before you begin...
● Federal data sharing mandates - Data management plans
  ○ Type
  ○ Metadata standards
  ○ Protection of sensitive data
  ○ Policies
  ○ Preservation

● Help
  ○ ICPSR Data Management and Curation
  ○ UM NSF DMP research guide
  ○ healthDMPhelp@umich.edu
<table>
<thead>
<tr>
<th>Agency</th>
<th>Guidance</th>
<th>Effective Date</th>
<th>DMP?</th>
<th>Sharing Venue</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DOD</strong></td>
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<td>End of 2016</td>
<td>Yes</td>
<td>“Established, publicly accessible institutional repositories”</td>
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<td>Department of Energy</td>
<td>DOE Guide</td>
<td>Oct 1, 2015</td>
<td>Yes</td>
<td>“including the data as supplementary information to the published article, or through other means.”</td>
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<td>DoED</td>
<td>IES</td>
<td>FY2016</td>
<td>Yes</td>
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<td><strong>DOT</strong></td>
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<td>Dec 31, 2015</td>
<td>Yes</td>
<td>An appropriate data repository, and inventoried in the DoT Public Data Listing</td>
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<td>Health and Human Services (HHS)</td>
<td>(AHRQ)</td>
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<td>Yes</td>
<td>TBD</td>
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<td></td>
<td>(ASPR)</td>
<td>Oct 2015</td>
<td>Yes</td>
<td>Publicly accessible databases</td>
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<tr>
<td>CDC</td>
<td>Oct 2015</td>
<td>Yes</td>
<td>Encourages the use of public repositories</td>
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<td>FDA</td>
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<td>Publicly accessible, discipline specific repositories</td>
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<td>NIH</td>
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<td>Existing, publicly accessible repositories</td>
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<tr>
<td><strong>NASA</strong></td>
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<td>Jan 1, 2015</td>
<td>Yes</td>
<td>Existing data repositories</td>
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<td><strong>NIST</strong></td>
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<td>Oct 2015</td>
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<tr>
<td>NOAA</td>
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<td>2015</td>
<td>Yes</td>
<td>Existing NOAA data centers, other data repositories, interagency Research Data Commons</td>
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<tr>
<td>NSF</td>
<td>NSF Guide</td>
<td>2011</td>
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<td>Smithsonian</td>
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<td>Partial</td>
<td>Smithsonian Research Online, or approved external data repository</td>
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<td>USDA</td>
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<td>USDA registry of datasets, other repository options</td>
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<td>USGS</td>
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<td>Jan 2016</td>
<td>Yes</td>
<td>USGS Data Portal</td>
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<tr>
<td>VA</td>
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<td>Dec 31, 2015</td>
<td>Yes</td>
<td>Partner with HHS, NIH, FDA, and DoD on “effective mechanisms”</td>
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Data Sharing and Preservation

● Why?
  ○ Open scientific inquiry
  ○ Reuse and new research
  ○ Rigor and reproducibility and much more...

● Where?
  ○ It depends - SPARC Data Sharing Tool - policy summaries for all agencies
  ○ Repositories
    ■ NIH data sharing repositories
    ■ Re3data.org - Registry of research data repositories
    ■ Deep Blue - University of Michigan’s institutional repository - Data and Publications
Data Retention and Clinical Data

● How long?
  ○ UM Policies
    ■ SPG 601.12 - Institutional data resource management policy
    ■ IRBMED Record keeping guidelines
  ○ Funding body requirements

● Clinical Trials
  ○ Clinicaltrials.gov (summary results) - 91 FR 64991
  ○ ICMJE proposal - Annals of Internal Medicine, British Medical Journal, JAMA (American Medical Association), New England Journal of Medicine, PLOS Medicine, Lancet, the U.S. National Library of Medicine, and the World Association of Medical Editors...; sharing of all clinical trials data for publications submitted to the ICMJE journals
DOCTR

- **Data Office for Clinical and Translational Research**
  - Health record data access - self serve and fee based
  - Data consultation - data access, data aggregation and analysis resources, secure data storage options
  - DSA and UFA resources

Remember - data sharing, publication requirements, funder requirements should all be considered before and during data creation and collection
Public and Open Access
Public Access

- Government encourages public access to information generated by tax payer funds
- NIHPAP (April 2008)
- FRPAA, FASTR, PAPS bills
- OSTP Memo (February 2013)
- NIHPAP enforcement (July 2013)
- 2014 Consolidated Appropriations Act
- Agencies release OSTP responses (March 2015)
NIHPAP

● National Institutes of Health Public Access Policy
  ○ Peer-reviewed manuscripts
  ○ After 4/7/2008
  ○ Any NIH direct funding
  ○ Must be submitted to PubMed Central (PMC)

● NOT-OD-13-042
  ○ Non-competing continuation grant awards with a start date of July 1, 2013
  ○ NIH delays processing of an award if publications arising from it are not in compliance with the NIH public access policy

● UM Experience
  ○ Funding has been delayed
  ○ Strict adherence to the policy - no NIHMSIDs/PMCIDs are mandatory
Stats

Number of manuscripts received by NIHMS and approved for processing by the author/PI for a given month.
Open Access

- Removes financial barriers to allow access and permission barriers to facilitate reuse
- Open Access is the **free, immediate, online availability** of research articles, coupled with the **rights** to use these articles **fully** in the digital environment.
- Common myths
  - Not an indicator of quality
  - Does not guarantee more readers or greater impact
  - Is not free
- **SHERPA/RoMEO** - Searchable database of journal and publisher copyright policies
## Publication Sharing

<table>
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<th>Agency</th>
<th>Directorate</th>
<th>Effective Date</th>
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<td>Defense Technical Information Center</td>
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<td>DOE</td>
<td>October, 2014</td>
<td>Article hosting choices: 1st) Publisher, 2nd) local repository, 3rd) OSTI Pages.</td>
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<td>DoED</td>
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<td>VA</td>
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<td>December 31, 2015</td>
<td>PubMed Central</td>
</tr>
</tbody>
</table>
Other Opens

- Open Education “is built on the belief that everyone should have the freedom to use, customize, improve and redistribute educational resources without constraint.”
  — [http://www.capetowndeclaration.org/read-the-declaration](http://www.capetowndeclaration.org/read-the-declaration)

- “Open source software is software that can be freely used, changed, and shared (in modified or unmodified form) by anyone.”

- Open data is “available in a convenient and modifiable form,” licensed to allow remixing and reuse, and machine-readable.
  — [https://okfn.org/opendata/](https://okfn.org/opendata/)
Publishing
Publishing

● Copyright
  ○ Protect your rights - Author Addendum
  ○ Copyright Office - University Library
    ■ UM Policy on faculty copyright - SPG 601.28
    ■ Copyright permissions

● Publishing Services
  ○ Michigan Publishing - University Library
    ■ University of Michigan Press
    ■ Deep Blue
  ○ Learning Design and Publishing - UMMS
    ■ Book and Journal Publishing
    ■ Instructional Content Development
    ■ Open.Michigan
    ■ Copyright
Measuring Impact
How do I measure Impact?

- **De-identify - ORCiD**
  - Persistent digital identifier that distinguishes you from every other researcher
  - Supports automated linkages (Mcommunity, PubMed...)
  - [My profile](#)

- **Metrics**
  - **Journal level - Thomson’s Journal Citation Reports**
  - **Author level - h-index (caveats)**
    - [Google Scholar](#) - GS Citations - create your own profile
    - [Scopus](#) - author search
    - [Web of Science](#) (Citation report)
  - **Citation level - cited in the source**
    - [Google Scholar](#), [Scopus](#), [Web of Science](#)
    - [PubMed](#)
C1 - Carotid artery longitudinal wall motion is associated with local blood velocity and left ventricular rotational, but not longitudinal, mechanics.

LID - 10.14841/phy2.12872 [doi]
LTD - e12872 [pii]

AB - Recent studies have identified a predictable movement pattern of the common carotid artery wall in the longitudinal direction. While there is evidence that the magnitude of this carotid artery longitudinal wall motion (CALM) is sensitive to cardiovascular health status, little is known about the determinants of CALM. The purpose of this integrative study was to evaluate the contribution of left ventricular (LV) cardiac motion and local blood velocity to CALM. Simultaneous ultrasound measurements of CALM, common carotid artery mean blood velocity (MBV), and left ventricular motion were performed in ten young, healthy individuals (6 males; 22 +/- 1 years). Peak anterograde CALM occurred at a similar time as peak MBV (18.57 +/- 3.98% vs. 18.53 +/- 2.81% cardiac cycle; t-test: P = 0.94; ICC = 0.79, P < 0.01). The timing of maximum retrograde CALM displacement was different, but related, to both peak apical (41.00 +/- 7.81% vs. 39.33 +/- 5.79% cardiac cycle; t-test: P < 0.01; ICC = 0.79, P < 0.01) and basal rotation (41.89 +/- 6.12% vs. 37.30 +/- 5.68% cardiac cycle; t-test: P < 0.01; ICC = 0.74, P < 0.01) with peak cardiac displacements preceding peak CALM displacements in both cases. The association between basal rotation and retrograde CALM was further supported by strong correlations between their peak magnitudes (r = -0.79, P = 0.02), whereas the magnitude of septal longitudinal displacement was not associated with peak CALM (r = 0.11, P = 0.77). These results suggest that the rotational mechanical movement of the LV base may be closely associated with longitudinal mechanics in the carotid artery. This finding may have important implications for interpreting the complex relationship between ventricular and vascular function.

CI - (c) 2016 The Authors. Physiological Reports published by Wiley Periodicals, Inc. on behalf of the American Physiological Society and The Physiological Society.
Alternative Metrics

- **Altmetrics** - “altmetrics is the creation and study of new metrics based on the Social Web for analyzing, and informing scholarship.”
- **Impactstory** - “Impactstory is an open-source website that helps researchers explore and share the online impact of their research”
  - My profile
Avoid Predatory Practices

- Be wary of unsolicited calls for proposals.
- Do not agree to submit manuscripts to, review submissions for, or join the editorial board of a journal you are not intimately familiar with.
- Fact check any claims made by the publisher or conference organizer.
- Make sure your own professional online presence is accurate and up to date.
- Practice “herd immunity.” Talk to your colleagues.
- When in doubt about the authenticity of a journal or conference, talk to a librarian.
- The best defense against being duped by a predatory publisher is a strong understanding of the publishing landscape in your own field.

[This material was adapted from Meredith Kahn, "Sharing your scholarship while avoiding the predators: Guidelines for medical physicists interested in open access publishing," Medical Physics 41, no. 7 (July 2014), http://dx.doi.org/10.1118/1.4883836. Licensed under CC BY 3.0.]
Acknowledgments

- Molly Kleinman, Publisher and OER Manager, LDP
- Meredith Kahn, Women’s Studies and Open Access Librarian, Univ Lib
Help

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- 734-764-1210
- nihms-library-support@umich.edu
- healthDMPhelp@umich.edu
- open.michigan@umich.edu

These slides are at:  http://bit.ly/2dJLJ6I
Questions