The NIH Public Access Policy
ALA Annual Conference

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National Institutes of Health

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1. The Public Access Policy
   - Goals
   - Policy

2. Benefits

3. Deposit methods

4. Deposit rates

5. How librarians can help
ARCHIVE. Keep a central archive of NIH-funded research publications—for now and in the future, preserving vital biomedical research results and information for years to come.

ADVANCE SCIENCE. Create an information resource for scientists to mine, and for NIH to manage better its entire research investment.

ACCESS. Provide electronic access to NIH-funded research publications for patients, families, health professionals, scientists, teachers, students, and others.
The Public Access Policy is about NIH funded authors

• Implemented the Public Access Policy on May 2, 2005.

• Requests **NIH-funded investigators** to submit their final, peer-reviewed manuscripts to the NIH National Library of Medicine's (NLM) pre-existing PubMed Central (PMC) database upon acceptance for publication in a journal.

• Although the NIH strongly encourages that a manuscript be made available to other researchers and the general public immediately after it has been published in a journal, the Policy allows an author to delay the manuscript’s public release for up to 12 months.
Open Access Publishing

“The authors and copyright holders grant to all users a free, irrevocable, worldwide, perpetual right of access to, and a license to copy, use, distribute, transmit and display the work publicly … subject to proper attribution of authorship…” (Bethesda Statement, April 2003)

The NIH Public Access Policy is different

• Articles are accessed through fair use principles, like content in libraries
  – Articles collected via Public Access are copyrighted by publishers
  – Articles are not made freely available to the public for up to 12 months
• Articles are housed on PubMed Central, a unique resource
  – Adds value by integrating content with GenBank, PubChem, etc
  – Shares value by offering links back to publishers
Identification of a genetic locus for familial atrial fibrillation.


Department of Cardiology, Baylor College of Medicine, Houston, TX 77030, USA.

BACKGROUND: Atrial fibrillation, the most common sustained cardiac-rhythm disturbance, affects over 2 million Americans and accounts for one third of all strokes in patients over 65 years of age. The molecular basis for atrial fibrillation is unknown, and palliative therapy is used to control the ventricular rate and prevent systemic emboli. We identified a family of 26 members of whom 10 had atrial fibrillation which segregated as an autosomal dominant disease. We subsequently identified two additional families in which the disease was linked to the same locus. METHODS: We screened the human genome with 300 polymorphic dinucleotide-repeat markers using an unconventional strategy of pooling the DNA samples into two groups (affected and unaffected), which reduced the sample size by approximately 90 percent, before performing linkage analysis to map the locus. This made it possible to identify potential loci within a few weeks. RESULTS: The lod scores for markers D1OS696 and D10S607, located at 10q22-q24, were 3.60 in Family 1. The disease locus in Families 2 and 3 was also linked to the same markers, with lod scores of 6.02 and 5.35 for markers D10S509 and D10S607, respectively, with the disease in affected families showing a recombination map of 2.5 centimorgans. (Using this strategy of pooling DNA samples, it may be possible to identify additional disease loci before conventional screening and to elucidate the molecular basis of the disease in the future.)

PMID: 9070470 [PubMed - indexed for MEDLINE]
Benefits of an Integrated Archive

1. PubMed Search Results
   - Search: PubMed
   - Search term: anti-influenza treatment prevention
   - Results: 177 papers
   - Items 41 - 60 of 177

2. Chemical Structures in Article
   - Comparison of the anti-influenza virus activity of RWJ-270201 with those of oseltamivir and zanamivir
   - PMID: 11257030

3. Compound in PubChem
   - RWJ-270201
   - Compound Summary:

4. 3-D View of Chemical and Protein
   - RWJ-270201 bound to neuraminidase
The value of PMC increases steadily as the number of articles it contains grows.

- May 2005 to December 2006
  - Contents of PMC grew by half a million, from 371,000 to 875,000 articles. (Hit 1 million this week!)
  - 30 million users viewed some 125 million copies of these articles.
  - Approximately 1% of the increase, or 4,536 articles, is a result of the Policy.

- Since 2000, over 300 journals have deposited all of their content in PMC

Benefits of Public Access: Other Funders, and PMCI

Given the benefits of Public Access, many funders have adopted mandatory Public Access policies, others are considering

<table>
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<tr>
<th>Funder</th>
<th>Mandate</th>
<th>Embargo</th>
<th>Payement Source</th>
</tr>
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<tbody>
<tr>
<td>NIH</td>
<td>Voluntary</td>
<td>Up to 12 months</td>
<td>PI Grant Funds</td>
</tr>
<tr>
<td>UK MRC</td>
<td>Mandatory</td>
<td>Up to 6 months</td>
<td>PI Grant Funds</td>
</tr>
<tr>
<td>Wellcome Trust</td>
<td>Mandatory</td>
<td>Up to 6 months</td>
<td>Dedicated Funds</td>
</tr>
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Leveraging foreign research: PubMed Central International (PMCI)
- A network of digital archives that can share deposited content (PMC, PMC UK, …)
- Expanded Content for US Scientists
  - More articles: PA like policies mandate deposit to local archives
  - Shared content through reciprocity
  - Richer Databases: foreign content integrated into NLM databases (e.g. GenBank, PubChem)
- Standardization and Accountability: Authors and publishers need work only with their local archive, and not deal with foreign archives or multiple electronic formats. PMCI sites use identical software, reporting and quality control processes.
- Copyright Safeguards: PMCI sites must meet the same distribution standards and safeguards as PMC.
- Enhanced Archiving: Working copies of the archive in regular use at multiple sites around the world
# Multiple Deposit Methods

Developed in collaboration with publishers

<table>
<thead>
<tr>
<th>Submission Method</th>
<th>Success Rate</th>
<th>Author Involvement</th>
<th>Publisher</th>
</tr>
</thead>
<tbody>
<tr>
<td>PubMed Central Journals (part of PMC since 2000)</td>
<td>100%</td>
<td>None</td>
<td>Over 300 Journals</td>
</tr>
<tr>
<td>PubMed Central (NIH Portfolio)</td>
<td>100%</td>
<td>None</td>
<td>ASH, ATS</td>
</tr>
<tr>
<td>Bulk Deposit (Opt In)</td>
<td>4%</td>
<td>Author requests publisher to deposit Author approves conversion</td>
<td>Nature, Blackwell, etc.</td>
</tr>
<tr>
<td>Bulk Deposit (Opt Out)</td>
<td>50%?</td>
<td>Author approves conversion</td>
<td>Elsevier</td>
</tr>
<tr>
<td><strong>Author Deposit</strong></td>
<td>4%</td>
<td>Author deposits article Author approves conversion</td>
<td>All others</td>
</tr>
</tbody>
</table>
A New Model Agreement: PMC (NIH Portfolio)

- PMC (NIH Portfolio) is a signed agreement between the National Library of Medicine (NLM) and a journal to automatically submit all of the articles requested under the Public Access policy.

- Journals automatically submit tagged, copyedited, NIH funded published articles.
  - Requires no author input
  - Results in 100% capture of NIH funded articles.
  - 12 month maximum delay period
  - Participating journals receive standard PMC usage statistics.
  - Participants identified on the Public Access webpage
Deposition Results as of May 31, 2007

- Total articles deposited under the Public Access Policy: 6,196
- Estimated total articles eligible for deposit under the Public Access Policy: 142,000
- Percent of total deposited: 4.4%.
- Slight increase is due to publisher bulk deposit. The trend is expected to plateau at 12%-14% later this year.
Examples of Publisher Deposit

- Elsevier Bulk Deposit Submissions, as of 5/30/07

<table>
<thead>
<tr>
<th>Month</th>
<th>Manuscripts sent to NIH via Bulk Deposit</th>
<th>Manuscripts Approved for Public Release by Authors</th>
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<tbody>
<tr>
<td>Sep-06</td>
<td>77</td>
<td>52 (67.5%)</td>
</tr>
<tr>
<td>Oct-06</td>
<td>76</td>
<td>42 (55.3%)</td>
</tr>
<tr>
<td>Nov-06</td>
<td>204</td>
<td>120 (58.8%)</td>
</tr>
<tr>
<td>Dec-06</td>
<td>521</td>
<td>251 (48.2%)</td>
</tr>
<tr>
<td>Jan-07</td>
<td>711</td>
<td>398 (56.0%)</td>
</tr>
<tr>
<td>Feb-07</td>
<td>796</td>
<td>419 (52.6%)</td>
</tr>
<tr>
<td>Mar-07</td>
<td>810</td>
<td>389 (48.0%)</td>
</tr>
<tr>
<td>Apr-07</td>
<td>1012</td>
<td>106 (10.5%)*</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4207</strong></td>
<td><strong>1777 (42.2%)</strong></td>
</tr>
</tbody>
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* Authors of articles submitted in April have only had a few weeks to review and approve them after conversion to PubMed Central format. The number of approved articles for April expected to rise in the coming weeks to the same level as for previous months.

- PMC NIH Portfolio Subset (agreements in place, deposits just beginning)
  - American Journal of Respiratory and Critical Care Medicine
  - American Journal of Respiratory Cell and Molecular Biology
  - Blood
How Librarians Can Help

• Help with Copyright Transfer Agreements
  – Advise authors on the copyright transfer process
  – Help institutions develop guidance on copyright transfer amendments to ensure authors retain their right to submit to Public Access

• Help with Deposition
  – Librarians can help authors deposit material
  – Develop strategies to encourage greater participation
• The NIH Public Access policy is about authors of articles based on NIH funded research

• Articles on PubMed Central have added value

• Participation in Public Access is unacceptably low

• Librarians can help authors
  – Understand copyright issues
  – Ensure author’s ability participate in the policy
  – Train and facilitate deposition
The Policy

http://publicaccess.nih.gov/index.htm

- Authors’ Manual (HTML and Adobe Acrobat)

- Public Access Policy in the NIH Guide

- Journals submitting on behalf of authors:
  http://publicaccess.nih.gov/submit_process_journals.htm

- Questions and Answers
  http://publicaccess.nih.gov/publicaccess_QandA.htm

Manuscript Submission

- http://nihms.nih.gov/

PubMed Central

- http://www.pubmedcentral.gov/
- PMC Demo: http://www.ncbi.nlm.nih.gov/Education/pmc/pmc.html

NLM Board of Regents

How it Works: Peer Review and Public Access

The Peer Review Process

Draft Manuscript of NIH Funded Research → Journal Intake (Paid Admin staff, paid or volunteer editors) → Journal Review (Volunteer Peer Reviewers) → Author Makes Revisions → Peer Reviewed Manuscript

The Publishing Process

Peer Reviewed Manuscript → Journal Copy Editing Tagging? → Copy Edited Manuscript

Tagged → NLM Tagging → Author Review/Quality Control → NLM Archives Manuscript → Embargo NIH Analysis → NLM Posting

Not Tagged → Journal Publication Posting