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# Open Access Publishing in the Biological/Medical Sciences

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# Open Access Publishing in the Biological/Medical Sciences

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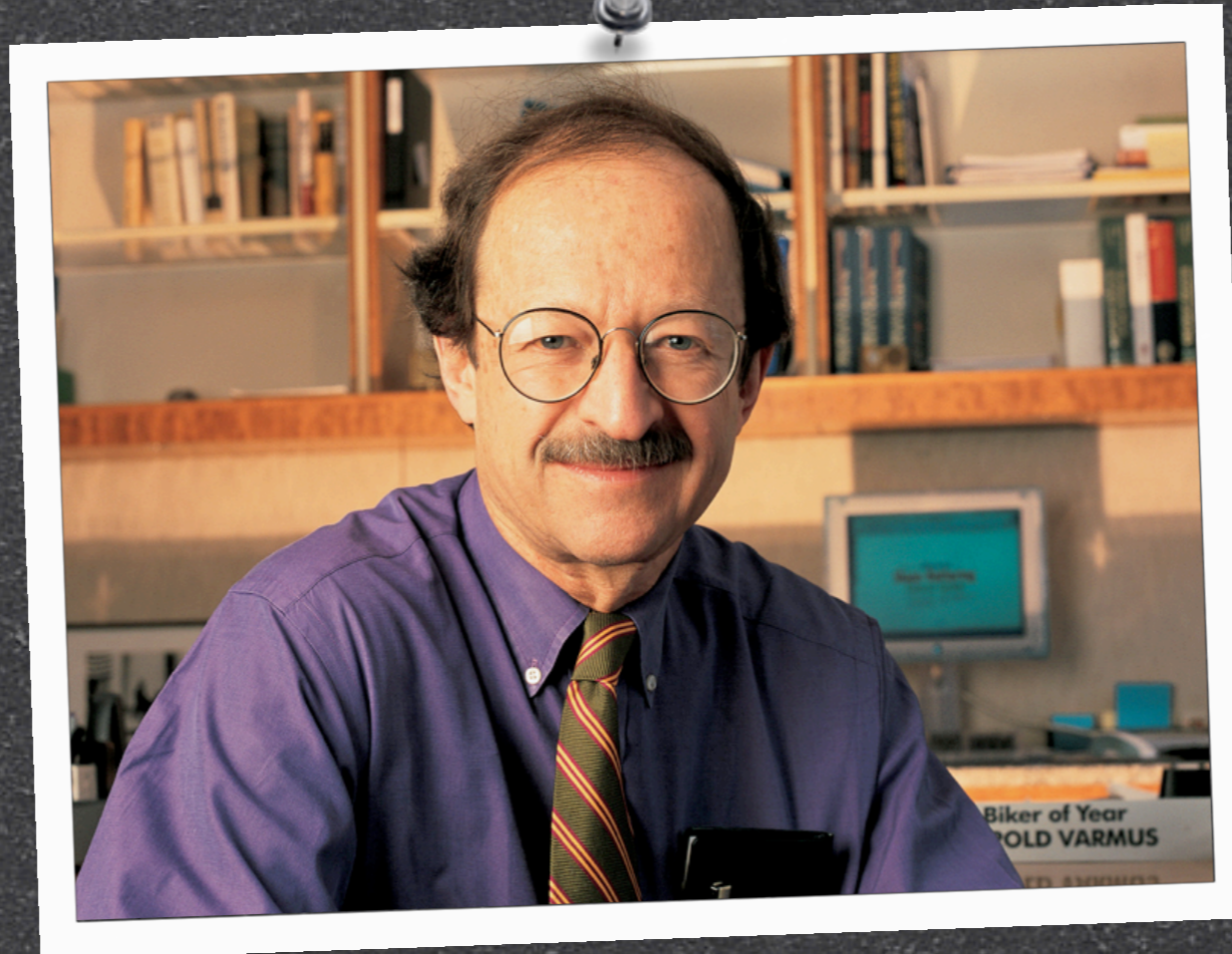
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<http://www.plos.org/downloads/wings.mpg>

# Harold Varmus (1939 - )



- ➔ 1989: Nobel Prize in Physiology or Medicine
- ➔ 1993-1999: Director of NIH
- ➔ 2000-present: President Memorial Sloan-Kettering Cancer Centre
- ➔ Co-founder and Chairman Board of Directors of PLoS
- ➔ Member of the Board of Trustees of Biomed Central

# Open Access (OA)

## Definition by PLoS

An OA Publication is one that meets the following two conditions:

1. The author(s) and copyright holder(s) grant(s) 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 and to make and distribute derivative works, in any digital medium for any responsible purpose, subject to proper attribution of authorship, as well as the right to make small numbers of printed copies for their personal use.
2. A complete version of the work and all supplemental materials, including a copy of the permission as stated above, in a suitable standard electronic format is deposited immediately upon initial publication in at least one online repository that is supported by an academic institution, scholarly society, government agency, or other well-established organization that seeks to enable open access, unrestricted distribution, interoperability, and long-term archiving (for the biomedical sciences, PubMed Central is such a repository).

# Definition of Open Access (OA)

- Publishing that offers FREE AVAILABILITY / UNRESTRICTED USE to scholarly material consented by the copyright holder.
- Most often through the World Wide Web.
- Variations based on restrictions:
  - "Gold OA": A fully open access journal hosted by the publisher with no barriers to online access.
  - Hybrid open access journals provide open access only for some articles, those for which payment is made on behalf of the author.
  - Delayed open access journals open access to particular articles only after a period of embargo.
  - "Green OA" is open access self-archiving (deposit by its authors) of material which may have been published as non-open access.

# Major OA Publishers

- **Public Library of Science (PLOS):** “Nonprofit organization of scientists and physicians committed to making the world's scientific and medical literature a freely available public resource”
- **Biomed Central:** “STM (Science, Technology and Medicine) publisher which has pioneered the open access publishing model” (202)
- **Bentham Science Publishers:** “A major STM journal publisher of 92 online and print journals, 200 plus open access journals, and related print/online book series”
- **Hindawi Publishing Corporation:** “Hindawi is a rapidly growing academic publisher with 150+ Open Access journals covering all major areas of science, technology, and medicine, and a book publishing program that spans all scholarly disciplines”.

PLoS

Biology

Medicine

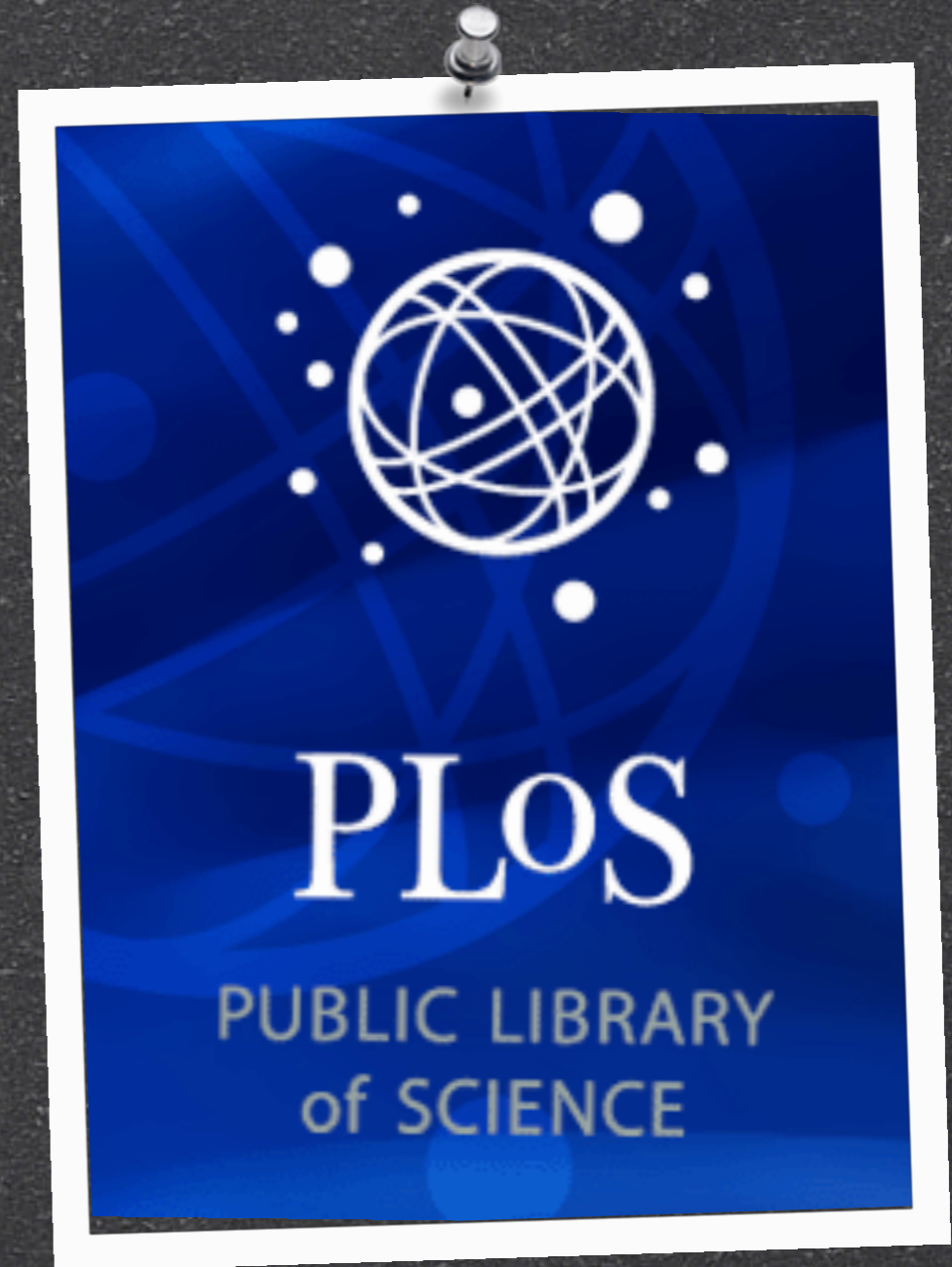
Pathogens

Computational Biology

Genetics

ONE

Neglected Tropical Diseases





# BMC

(Biomed Central)

202 OA peer-reviewed journals:

BMC Immunol

BMC Medicine

Journal of Negative Results in

Biomedicine

etc.



# Journal / Impact factors

PLoS Biol	12.683	BMC Biol	4.734
PLoS Comput Biol	5.895	BMC Evol Biol	4.05
PLoS Genet	8.883	BMC Plant Biol	4.03
		... ..	
PLoS Med	12.185	BMC Med	3.276
PLoS Neglect Trop D	4.172		
PLoS Pathog	9.125		

# Finding a niche...

...in the 2008 Journal Citation Reports, Thomson Reuters reports that five OA journals had the highest IFs in their fields:

- \* PLoS Neglected Tropical Diseases = first in Tropical Medicine (out of 15)
- \* PLoS Pathogens = first in Parasitology (out of 25)
- \* PLoS Computational Biology = first in Mathematical & Computational Biology (out of 28)
- \* PLoS Biology = first in Biology (out of 71)
- \* Journal of Medical Internet Research = first in Medical Informatics (out of 20)

# Directory of OA Journals

- <http://www.doaj.org/>
- “...we take the right of users to "read, download, copy, distribute, print, search, or link to the full texts of these articles" as mandatory for a journal to be included in the directory.”

# Delivering OA: Gold vs. Green OA

- “Gold OA” refers to OA that is provided and delivered by journals
- “Green OA” refers to OA delivered by archives or repositories
- Other delivery systems: personal web sites, blogs, wikis, etc.

# Specific Archives

- [Scholarship@western](#)
- [PubMed Central](#)

# Myths of OA

- Not copyrighted
- Not peer-reviewed
- Not Indexed
- Useless for Career advancement
- Lack of Prestige
- Print-less
- No Preservation
- Revenue-less

# Advantages of OA Publishing

- Exposure: Colleagues, Teachers/students, Libraries, Publishers, finding agencies, governments, health charities, etc.
- Dissemination
- Fast
- Ability to track down access
- Interactivity
- Eco-friendly?



# Potential shortcomings of OA

- Lower impact
- Misinformation
- Cost (hybrid OA)

# Cost

- About 10% of open-access journals levy author publication fees, which can include submission charges, page charges, illustration fees, and surcharges for color, and such fees represent about 30% of the revenue generated by open-access journals.
- According to one survey, article processing fees are wholly or partially subsidized, either by a research grant (34%), a foundation grant (5%), or by the author's host department (8%) or institutional library (27%). The payment of such fees out of an author's personal funds appears relatively low—about 5% across all open access journals.

# Cost: an example...

...

Dear Prof Madrenas,

Thank you for considering BMC Immunology for your manuscript and letting us know that you are from a supporter member institute. I would like to confirm that you will get a 15.0% discount on the article-processing charge for this article.

This would mean that if your manuscript was accepted you would have to pay a GBP 871.25/USD 1,436.50/EUR 1,020.00 article-processing charge on this article. No further discounts will be available for your article. Since you are based in Canada, you will be charged the price of USD 1,436.50.

If you can pay this charge, you should go back to the submission pages for your manuscript, click 'I agree to pay', and then finish submitting. The link to your submission page is:

...

# CIHR and OA (Dec. 2007)

- “Under this new Policy, which will apply to all grants awarded after January 1, 2008 that receive funding in whole or in part from CIHR, grant recipients must make every effort to ensure that their peer-reviewed research articles are freely available as soon as possible after publication. This can be achieved by depositing the article in an archive, such as PubMed Central or an institutional repository, and/or by publishing results in an open access journal. A growing number of journals already meet these requirements and CIHR-funded researchers are encouraged to consider publishing in these journals.
- Additionally, grant recipients are now required to deposit bioinformatics, atomic, and molecular coordinate data, as already required by most journals, into the appropriate public database immediately upon publication of research results.
- <http://www.cihr-irsc.gc.ca/e/32005.html>

# NIH and OA

- The Policy applies to any manuscript that:
  - ◆ Is peer-reviewed;
  - ◆ And, is accepted for publication in a journal on or after April 7, 2008;
  - ◆ arises from:
    - ✓ Any direct funding from an NIH grant or cooperative agreement active in Fiscal Year 2008 or beyond, or;
    - ✓ Any direct funding from an NIH contract signed on or after April 7, 2008, or;

- ✓ Any direct funding from the NIH Intramural Program, or;
- ✓ An NIH employee.

• <http://publicaccess.nih.gov/FAQ.htm>

# SHERPARomeo

• Use this site to find a summary of permissions that are normally given as part of each publisher's copyright transfer agreement.

• <http://www.sherpa.ac.uk/romeo/>

# Romeo Archiving Policy in Colors

- green: can archive pre-print and post-print or publisher's version/PDF
- blue: can archive post-print (ie final draft post-refereeing) or publisher's version/PDF
- yellow: can archive pre-print (ie pre-refereeing)
- white: archiving not formally supported

# How to decide about a journal to publish your work?

- Goal is to get the highest profile exposure to your work (readership, IF, ongoing themes, etc.)
- Pursue OA delivery (if not OA publishing): institutional, international repositories, etc. (check SHARPARoMEO)
- Increase exposure by posting manuscript on your web page
- Include publication costs for OA journals in grant publications
- Press institution for archiving





**WHY SHOULD YOU PAY TO READ THEM ?**