Open Access and how it affects your citations

Johanna Kuhn
BioMed Central Ltd

University of Pretoria
14th June 2012
Agenda

• About BioMed Central
• What is Open Access?
• Impact Factors
• Case study – Malaria Journal
• Open Access & Citations
• Open Access at University of Pretoria
About BioMed Central

• Largest publisher of peer-reviewed open access journals
• Launched first open access journal in 2000
• Became part of Springer in 2008
• Now publishes 237 open access journals
• Stringent peer review process in place for all journals
• >100,000 peer-reviewed OA articles published
• Costs covered by 'article processing charge’ (APC)
What is Open Access?
Open Access Publishing

• Traditional journals
  – take ownership of the research
  – provide access to subscribers only

• Open access journals
  – have no subscription barriers
  – take advantage of the economics of the internet to allow universal access
  – research is openly licensed to allow reuse
Characteristics of Open Access

- The publisher charges directly for the service of publication/dissemination (APC’s)
- Research immediately and permanently available via the Internet
- No barriers to access such as subscription costs
- Licensed so as to allow redistribution and reuse (Creative Commons)
- Archived in an internationally recognized repository (e.g. PubMed Central) - permanently archived in multiple locations to ensure long term access
Benefits of Open Access

- Lack of subscription barriers ensures all researchers can build on results of previous work
- Articles are easy to find as they are widely indexed
- Barriers between fields are removed
- Public access promotes engagement with scientific and medical research

=> Restricting access does not make good use of digital distribution
Routes towards Open Access

• **Gold OA**
  Publishing in an open access journal
  – Fully OA journals
  – Optional OA in traditional journals

• **Green OA**
  Depositing articles in an OA repository

**Subject repositories**
  – PubMed Central
  – ArXiv

**Institutional repositories**
  – University of Pretoria Repository
  – Médecins Sans Frontières
Open Access today
Where is Open Access in 2012?

• There are over 6400 open access journals in the DOAJ
• Over 1000 open access journals are indexed by ISI
• Open access to research is now mandated in over 110 institutions and by 47 funders
• Submissions to OA journals grew by over 35% between 2010 and 2011
Open Access Publishing, then and now...

2000

Biomed Central

2012

Springer Open Choice

Blackwell Publishing

Online Open

Hindawi Publishing Corporation

COAction Publishing

DOVE Medical Press

ATLANTIS PRESS

BENTHAM OPEN

Scientific Journals

International

Springer Open

BioMed Central

The Open Access Publisher
Open Access articles published in BioMed Central journals
Open access article share

OA  Non OA

ISI covered Article in thousands


BioMed Central
The Open Access Publisher
Submitted/Published Manuscripts from South Africa

- **2007**: 20 accepted, 60 submitted
- **2008**: 30 accepted, 100 submitted
- **2009**: 40 accepted, 150 submitted
- **2010**: 50 accepted, 200 submitted
- **2011**: 60 accepted, 250 submitted
- **2012**: 70 accepted, 300 submitted

Legend:
- Red: accepted
- Pink: submitted
Top 10 journals for publications from Africa in last 12 months

<table>
<thead>
<tr>
<th>Journal</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaria Journal</td>
<td>80</td>
</tr>
<tr>
<td>BMC Public Health</td>
<td>42</td>
</tr>
<tr>
<td>BMC Infectious Diseases</td>
<td>31</td>
</tr>
<tr>
<td>BMC Research Notes</td>
<td>27</td>
</tr>
<tr>
<td>Cases Journal</td>
<td>25</td>
</tr>
<tr>
<td>Parasites &amp; Vectors</td>
<td>22</td>
</tr>
<tr>
<td>Virology Journal</td>
<td>16</td>
</tr>
<tr>
<td>Journal of the International AIDS Society</td>
<td>16</td>
</tr>
<tr>
<td>Journal of Medical Case Reports</td>
<td>16</td>
</tr>
<tr>
<td>BMC Pediatrics</td>
<td>14</td>
</tr>
</tbody>
</table>
Open Access and Impact Factors
Impact factors

- Many limitations as a metric
- Some alternatives do now exist
- However impact factors remain hugely influential
- In many countries, financial reward and career advancement depends on publication in ISI tracked journals
- Good impact factors have helped many BioMed Central journals to grow
BioMed Central journals with impact factors
### Journals that will receive an Impact Factor in 2012

<table>
<thead>
<tr>
<th>Journal</th>
<th>Impact Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMC Endocrine Disorders</td>
<td></td>
</tr>
<tr>
<td>BMC Medical Ethics (1.93)</td>
<td></td>
</tr>
<tr>
<td>BMC Surgery (1.4)</td>
<td></td>
</tr>
<tr>
<td>Cell Communication and Signalling (4.03)</td>
<td></td>
</tr>
<tr>
<td>Globalization and Health (2.07)</td>
<td></td>
</tr>
<tr>
<td>Head &amp; Neck Oncology</td>
<td></td>
</tr>
<tr>
<td>Journal of Cheminformatics (1.8)</td>
<td></td>
</tr>
<tr>
<td>Journal of Foot &amp; Ankle Research</td>
<td></td>
</tr>
<tr>
<td>Pediatric Rheumatology (1.74)</td>
<td></td>
</tr>
<tr>
<td>BMC International Health and Human Rights</td>
<td></td>
</tr>
<tr>
<td>BMC Pregnancy &amp; Childbirth (2.09)</td>
<td></td>
</tr>
<tr>
<td>Cancer Cell International (1.9)</td>
<td></td>
</tr>
<tr>
<td>Diabetology &amp; Metabolic Syndrome (1.32)</td>
<td></td>
</tr>
<tr>
<td>Gut Pathogens</td>
<td></td>
</tr>
<tr>
<td>Italian Journal of Pediatrics</td>
<td></td>
</tr>
<tr>
<td>Journal of Ethnobiology and Ethnomedicine (1.28)</td>
<td></td>
</tr>
<tr>
<td>Journal of Ovarian Research (2.1)</td>
<td></td>
</tr>
<tr>
<td>Stem Cell Research &amp; Therapy</td>
<td></td>
</tr>
</tbody>
</table>

*BioMed Central, The Open Access Publisher*
Impact factors can benefit when journals move to OA
Top 20 Impact Factor journals

1. Genome Biology
2. Journal of Rare Diseases
3. Breast Cancer Research
4. Journal of Neuroinflammation
5. BMC Medicine
6. Retrovirology
7. BMC Biology
8. Epigenetics & Chromatin
9. Critical Care
10. Arthritis Research & Therapy
11. BMC Genomics
12. Biotechnology for Biofuels
13. Molecular Pain
14. BMC Plant Biology
15. Cell Division
16. Molecular Cancer
17. Journal of Cardiovascular Magnetic Resonance
18. Microbial Cell Factories
19. Particle and Fibre Toxicology
20. Molecular Neurodegeneration

Impact Factor Ranges:

- 6.89
- 5.93
- 5.79
- 5.79
- 5.75
- 5.36
- 5.24
- 5.2
- 4.91
- 4.73
- 4.6
- 4.54
- 4.36
- 4.33
- 4.21
- 4.15
- 4.09
- 4.09
- 3.78
Open Access and Visibility

Malaria Journal - an open access journal case study
Editor-in-Chief
Marcel Hommel, University of Liverpool

Articles

Case report Open Access
Post-treatment haemolysis in severe imported malaria after intravenous artesunate: case report of three patients with hyperparasitaemia
Rolling T, Schmiedel S, Wichmann D, Wittkopf D, Burchard GD and Cramer JP

Aims & scope
Malaria Journal is aimed at the scientific community interested in malaria in its broadest sense. It is the only journal that publishes...
<table>
<thead>
<tr>
<th>Mark</th>
<th>Rank</th>
<th>Abbreviated Journal Title</th>
<th>ISSN</th>
<th>Total Cites</th>
<th>Impact Factor</th>
<th>5-Year Impact Factor</th>
<th>immediacy Index</th>
<th>Articles</th>
<th>Cited Half-Life</th>
<th>Eigenfactor™ Score</th>
<th>Article Influence™ Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>PLOS NEGLECT TROP D</td>
<td>1935-2727</td>
<td>2020</td>
<td>4.752</td>
<td>4.849</td>
<td>0.609</td>
<td>335</td>
<td>1.9</td>
<td>0.01140</td>
<td>1.580</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>MALARIA J</td>
<td>1475-2875</td>
<td>4012</td>
<td>3.489</td>
<td>3.551</td>
<td>0.594</td>
<td>374</td>
<td>2.7</td>
<td>0.01855</td>
<td>0.999</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>TROP MED INT HEALTH</td>
<td>1360-2276</td>
<td>5503</td>
<td>2.841</td>
<td>2.967</td>
<td>0.540</td>
<td>198</td>
<td>5.8</td>
<td>0.01791</td>
<td>0.995</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>T ROY SOC TROP MED H</td>
<td>0035-9203</td>
<td>8015</td>
<td>2.832</td>
<td>2.615</td>
<td>0.367</td>
<td>147</td>
<td>&gt;10.0</td>
<td>0.01495</td>
<td>0.811</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>AM J TROP MED HYG</td>
<td>0002-9637</td>
<td>16905</td>
<td>2.446</td>
<td>2.884</td>
<td>0.502</td>
<td>430</td>
<td>9.1</td>
<td>0.03423</td>
<td>0.910</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>ACTA TROP</td>
<td>0001-706X</td>
<td>4527</td>
<td>2.262</td>
<td>2.500</td>
<td>0.928</td>
<td>153</td>
<td>6.9</td>
<td>0.01011</td>
<td>0.706</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>MEM I OSWALDO CRUZ</td>
<td>0074-0276</td>
<td>5385</td>
<td>2.058</td>
<td>2.081</td>
<td>0.087</td>
<td>183</td>
<td>7.9</td>
<td>0.01047</td>
<td>0.563</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>ANN TROP MED PARASIT</td>
<td>0003-4983</td>
<td>2782</td>
<td>1.288</td>
<td>1.579</td>
<td>0.274</td>
<td>73</td>
<td>&gt;10.0</td>
<td>0.00458</td>
<td>0.534</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>J TROP PEDIATRICS</td>
<td>0142-6338</td>
<td>1416</td>
<td>1.248</td>
<td>1.286</td>
<td>0.284</td>
<td>81</td>
<td>7.9</td>
<td>0.00315</td>
<td>0.408</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>LEPROSY REV</td>
<td>0305-7518</td>
<td>516</td>
<td>1.162</td>
<td>1.038</td>
<td>0.000</td>
<td>14</td>
<td>8.5</td>
<td>0.00090</td>
<td>0.248</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>ANN TROP PAEDIATR</td>
<td>0272-4936</td>
<td>802</td>
<td>0.966</td>
<td>1.052</td>
<td>0.208</td>
<td>48</td>
<td>9.9</td>
<td>0.00156</td>
<td>0.347</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>REV INST MED TROP EP</td>
<td>0036-1666</td>
<td>1499</td>
<td>0.034</td>
<td>0.111</td>
<td>63</td>
<td>&gt;10.0</td>
<td>0.00193</td>
<td>0.009</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>TROP BIOMED</td>
<td>0127-5720</td>
<td>259</td>
<td>0.581</td>
<td>0.024</td>
<td>83</td>
<td>5.2</td>
<td>0.00068</td>
<td>0.197</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>REV SOC BRAS TROP BRAS MED TRO</td>
<td>0037-8682</td>
<td>1540</td>
<td>0.580</td>
<td>0.847</td>
<td>0.048</td>
<td>168</td>
<td>7.4</td>
<td>0.00277</td>
<td>0.197</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>TROP DOCT</td>
<td>0049-4755</td>
<td>635</td>
<td>0.521</td>
<td>0.518</td>
<td>0.141</td>
<td>85</td>
<td>6.6</td>
<td>0.00176</td>
<td>0.169</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>BIOMEDICA</td>
<td>0120-4157</td>
<td>383</td>
<td>0.442</td>
<td>0.167</td>
<td>60</td>
<td>4.7</td>
<td>0.00092</td>
<td>0.076</td>
<td></td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>J VENOM ANIM TOXINS</td>
<td>1678-9199</td>
<td>244</td>
<td>0.302</td>
<td>0.481</td>
<td>0.148</td>
<td>61</td>
<td>5.2</td>
<td>0.00042</td>
<td>0.076</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>ASIAN PAC J TROP MED</td>
<td>1995-7648</td>
<td>42</td>
<td>0.172</td>
<td>0.172</td>
<td>0.061</td>
<td>278</td>
<td>28.6</td>
<td>0.00003</td>
<td>0.011</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>KASPERA</td>
<td>0075-5222</td>
<td>20</td>
<td>0.034</td>
<td>0.034</td>
<td>0.034</td>
<td>0.034</td>
<td>0.034</td>
<td>0.034</td>
<td>0.034</td>
</tr>
</tbody>
</table>

*Ranking is based on your journal and sort selections.*
Annual growth in submissions to *Malaria Journal*
A highly accessed Malaria Journal article

15,000+ downloads
31 citations
Open Access & Citations
Citation count

- Alma Swan compares 31 different studies on citations in Open Access
- 27 out of 31 studies suggest that the number of citations will increase depending on the discipline, if made Open Access

(Swan, A. (2010) The Open Access citation advantage: Studies and results to date. Technical Report, School of Electronics & Computer Science, University of Southampton.)
## Increased citation

<table>
<thead>
<tr>
<th>Discipline</th>
<th>% higher</th>
<th>citation count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicine</td>
<td></td>
<td>300 - 450</td>
</tr>
<tr>
<td>Agricultural Sciences</td>
<td></td>
<td>200 - 600</td>
</tr>
<tr>
<td>Physics / Astronomy</td>
<td></td>
<td>170 – 580</td>
</tr>
<tr>
<td>Communication Sciences</td>
<td></td>
<td>200</td>
</tr>
<tr>
<td>Mathematics</td>
<td></td>
<td>35 - 91</td>
</tr>
</tbody>
</table>

(Swan, A. (2010) The Open Access citation advantage: Studies and results to date. Technical Report, School of Electronics & Computer Science, University of Southampton.)
Heterologous expression of plasmodial proteins for structural studies and functional annotation

Lyn-Marie Birkholtz, Gregory Blatch, Theresa L Coetzer, Heinrich C Hoppe, Esmeré Human, Elizabeth J Morris, Zoleka Ngcete, Lyndon Oldfield, Robyn Roth, Addmore Shonhali, Linda Stephens and Abraham I Louw

* Corresponding author: Abraham I Louw braam.louw@up.ac.za

1 Department of Biochemistry, University of Pretoria, Pretoria, South Africa
2 Department of Biochemistry, Microbiology & Biotechnology, Rhodes University, Grahamstown, South Africa
3 Department of Molecular Medicine and Haematology, University of the Witwatersrand/National Health Laboratory Service (NHLS), Johannesburg, South Africa
4 Council for Scientific and Industrial Research, CSIR Biosciences, Pretoria, South Africa
5 African Centre for Gene Technologies (Joint initiative of the CSIR, the University of Pretoria and the University of the Witwatersrand), Pretoria, South Africa
6 Department of Biochemistry and Microbiology, Zululand University, Kwadlangezwa, South Africa

For all author emails, please log on.


The electronic version of this article is the complete one and can be found online at:
http://www.malariajournal.com/content/7/1/197

Received: 19 June 2008
De novo assembled expressed gene catalog of a fast-growing Eucalyptus tree produced by Illumina mRNA-Seq

Eshchar Mizrachi\textsuperscript{1,}\textsuperscript{†}, Charles A Hefer\textsuperscript{2,}\textsuperscript{†}, Martin Rank\textsuperscript{1}, Fourie Joubert\textsuperscript{2} and Alexander A Myburg\textsuperscript{1}∗

∗Corresponding author: Alexander A Myburg zander.myburg@fabi.up.ac.za
†Equal contributors

1Department of Genetics, Forstry and Agricultural Biotechnology Institute (FABI), University of Pretoria, Pretoria, 0002, South Africa
2Bioinformatics and Computational Biology Unit, Department of Biochemistry, University of Pretoria, Pretoria, 0002, South Africa

Email: Eshchar Mizrachi eshchar.mizrachi@up.ac.za - Charles A Hefer charles.hefer@up.ac.za - Martin Rank martin.rank@fabi.up.ac.za - Fourie Joubert fourie.joubert@up.ac.za - Alexander A Myburg zander.myburg@fabi.up.ac.za


Has been accessed over 5700 times

Has been cited 16 times
Average number of citations per article - University of Pretoria

- BioMed Central: 5.82
- Elsevier: 4.62
- PlosOpen: 5.11
Open Access at the University of Pretoria –
“building the road by walking it”
University of Pretoria Open Access Mandate

• Mandatory policy since 2009
• University of Pretoria supports free open access to the research literature for all researchers and takes responsibility for dissemination of its own research outputs
• Staff & students required to
  – submit peer-reviewed post prints of their articles and conference papers to UPSpace
  – give the University permission to make the content freely available and to take necessary steps to preserve files in perpetuity
UPeTD – Electronic Theses and Dissertations

- UPeTD's rating in the international Webometrics ranking of institutional repositories is no. 60 worldwide in terms of content, size and visibility - the first in Africa.
- One of 2 South African university repositories listed on Roarmap
- 2080 full text doctoral theses and 5138 research master’s dissertations
BMC Membership

• The university has entered into an agreement with BMC to cover the article costs
• Various levels of support...
• University of Pretoria has chosen the highest level of Support that a University can offer to their researchers!
Prepay Membership

- University covers the article cost (APC) for their researchers
- Journals that have an Impact Factor can be used
- BioMed Central, Chemistry Central and Springer Open journals
Benefits of Prepay Membership for researchers at University of Pretoria

• Easier submission process – automatic IP address recognition
• Higher visibility of your articles (PR of Membership, Members page) result in higher citations

=> the University covers the cost for your publications!
Member - University of Pretoria

The University of Pretoria (UP) is one of the leading research universities in South Africa offering more than 1800 academic programmes in two of the official languages, namely Afrikaans and English.
http://web.up.ac.za/

Research staff and students at the University of Pretoria:

Do you realize your organization has set up a Prepay Membership with BioMed Central, which allows you to publish in BioMed Central, Chemistry Central and SpringerOpen journals published on the ISI Web of Science (Science Citation Index Expanded, Social Sciences Citation Index, Arts & Humanities Citation Index) or the IBSS (International Bibliography of the Social Sciences) list without any charge. Payment of your article-processing charges is covered by the University of Pretoria’s Prepay Membership. Read more information about publishing your articles with us. Please note that you should be submitting to a journal not on either of the ISI or IBSS lists you will not be supported by the University of Pretoria’s Prepay Membership arrangement and will have to cover the article processing charges independently.

Work published with BioMed Central, Chemistry Central and SpringerOpen by researchers at University of Pretoria

1. Research article Open Access
   In vitro activity of tigecycline against clinical isolates of carbapenem resistant Acinetobacter baumannii complex in Pretoria, South Africa
   Nahid H Ahmed, Kamaldeen Baba, Cornelis Clay, Ruth Lekalakala, Anwar A Hoosen
   Abstract | Provisional PDF | Published

2. Research Open Access
   The synergistic action of imidacloprid and flumethrin and their release kinetics from collars applied for ectoparasite control in dogs and cats
   Dorothee Stanneck, Ulrich Ebbinghaus-Kintscher, Eva Schoenhense, Eva M Kruegedwagen, Andreas Turberg, Andrew Leisewitz, Wolfgang Jiritschka, Klemens J Krieger
   Parasites & Vectors 2012, 5:73 (12 April 2012)
   Abstract | Provisional PDF | Published | Editor’s summary

3. Letter to the Editor Open Access
   Highly accessed
   Vector-Borne Diseases - constant challenge for practicing veterinarians: recommendations from the CVBD
Thank you

johanna.kuhn@biomedcentral.com