Importance of Open Access for researchers and science

Open Access Workshop
University of Witwatersrand
23rd October 2013

Johanna Kuhn
BioMed Central Ltd
Agenda

• Springer and Open Access
• Importance of Open Access
• Open Access - a changing landscape
• Science Open Access Sting Operation and Predatory Publishers
• Open Access publishing at Springer
• Open Access at Witwatersrand University from Springer’s perspective
Springer and Open Access
# Open Access flavors at Springer

<table>
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<tr>
<th>Authors’ Rights</th>
<th>Hybrid Open Access</th>
<th>Fully Open Access</th>
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<tr>
<td>• Self-archiving of author’s accepted manuscript version</td>
<td>• Open Access option in majority of Springer titles</td>
<td>• <img src="https://www.biomedcentral.com" alt="BioMed Central" /></td>
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<tr>
<td>• Upload service for NIH funded authors</td>
<td>• Open Choice for individual authors: Article fee €2200/ US$3000</td>
<td><img src="https://www.springeropen.com" alt="Springer Open" /> (NEW!)</td>
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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
  - WIReDSpace
BioMed Central

- Launched first open access journal in 2000
- Now publishes 257 OA titles
- Over 150,000 peer-reviewed OA articles published
- Became part of Springer in 2008
- More than 10 million article downloads per month
- All research articles published under Creative Commons license
- Costs covered by 'article processing charge' (APC)
What is SpringerOpen?

• Open access journals covering all disciplines
• Creative Commons
• Over 150 peer reviewed journals
• Planned addition of 400-500 journals in next few years
• Administered by BioMed Central
BioMed Central subject areas

**Anesthesiology**
- BMC Anesthesiology
- Critical Care
  - all research articles Open Access; subscription required

**Bioinformatics**
- Algorithms for Molecular Biology
- BioData Mining
- Biology Direct
- Biomarker Research
- BMC Bioinformatics
- BMC Biophysics
- BMC Genomics
- BMC Structural Biology
- BMC Systems Biology
- Clinical Proteomics
- EURASIP Journal on Bioinformatics and Systems Biology
  - Genetics Selection Evolution
  - Genome Biology
    - all research articles Open Access; subscription required
  - Genome Medicine
    - all research articles Open Access; subscription required
  - GigaScience

**Biochemistry**
- BMC Biochemistry
- BMC Biophysics
- BMC Biotechnology
- BMC Structural Biology
- Cancer & Metabolism
- Cell Communication and Signaling
- Cell Division
  - Chemistry Central Journal
  - Cilia
  - Flavour
  - Journal of Venomous Animals and Toxins including Tropical Diseases
  - Longevity & Healthspan
  - Nutrition & Metabolism

**Allergy**
- Allergy, Asthma & Clinical Immunology
- BMC Dermatology
- Clinical and Molecular Allergy
- Clinical and Translational Allergy
- World Allergy Organization Journal
Importance of Open Access
Open Access publishing

Different business model.....
• no subscription barriers
• universal access
• research is openly licensed to allow reuse

Same quality and standards
• Editors in chief
• Editorial boards
• Peer review
• Indexing
Why Open Access?

- Breaks down barriers between disciplines
- Promotes public engagement with scientific and medical research
- Creates an open global forum for scientific communication

- **For researchers:**
  - Very high visibility
  - Widely indexed
  - No barriers to dissemination (also social sharing) and access to research
  - Higher citations
Research

The dominant Anopheles vectors of human malaria in Africa, Europe and the Middle East: occurrence data, distribution maps and bionomic précis

Marianne E Sinka1, Michael J Bangs2, Sylvie Manguin3, Maureen Coetzee4, Charles M Mbogo5, Janet Hemingway4, Anand P Patil6, Will H Temperley, Peter W Gething, Caroline W Kabara8, Robi M Okara8, Thomas Van Boeckel5,6, H Charles J Godfray4, Ralph E Harbach12 and Simon I Hay1,8

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8 Malaria Public Health and Epidemiology Group, Centre for Geographic Medicine, KEMRI - Univ Oxford - Wellcome Trust Collaborative Programme, Kenya National Hospital Grounds, P.O. Box 43640-0100 Nairobi, Kenya
9 Biological Control and Spatial Ecology, Université Libre de Bruxelles CP160/12, Av PD Roosevelt 50, B1050, Brussels, Belgium
10 Department of Entomology, The Natural History Museum, Cromwell Road, London, SW7 5BD, UK

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Related literature

Cited by

This article has been cited 77 times in Scopus:
(Showing the 2 most recent)


Lol, J.C., Castellanos, M.E., Liebman, K.A. Molecular evidence for historical presence of knockdown resistance in Anopheles albimanus, a key malaria vector in Latin America (2013) Parasites and Vectors

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Abstract · Full Text · PDF · Total: 1221 · 6858 · 2795 · 10874
Open access - a changing landscape
The changing landscape of open access publishing

2000

2013

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The Open Access Publisher

PLOS

Blackwell Publishing
Online Open

SpringerOpen

SAGE open

wellcome trust

DOVE Medical Press

Cell Reports

wiley Open Access

eLIFE

npg

FEMS openbio
Open Access in 2013

• There are nearly 10,000 open access journals in the DOAJ

• Over 1000 open access journals are indexed by ISI

• Open access to research is now mandatory in nearly 150 institutions and at over 50 funders

• A recent study found that 8.5% of peer reviewed articles are now published in a fully open access form*

*Study of open access – Bo Christer Bjork, PLOS One
Growth in Submissions and Publications

[Graph showing the increase in submissions and publications from 2001 to 2012. The graph indicates a steady rise in both categories over the years.]
BioMed Central journals with impact factors
### Top 10 Impact Factors for BioMed Central journals

<table>
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<th>Journal</th>
<th>Impact Factor</th>
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<tr>
<td>Genome Biology</td>
<td>10.3</td>
</tr>
<tr>
<td>Particle and Fibre Toxicology</td>
<td>9.18</td>
</tr>
<tr>
<td>BMC Medicine</td>
<td>6.68</td>
</tr>
<tr>
<td>BMC Biology</td>
<td>6.53</td>
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<tr>
<td>Breast Cancer Research</td>
<td>5.87</td>
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<tr>
<td>Retrovirology</td>
<td>5.66</td>
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<tr>
<td>Biotechnology for Biofuels</td>
<td>5.55</td>
</tr>
<tr>
<td>Molecular Cancer</td>
<td>5.13</td>
</tr>
<tr>
<td>Cell Communication and Signaling</td>
<td>5.09</td>
</tr>
<tr>
<td>Critical Care</td>
<td>4.72</td>
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Celebrating the launch of BioMed Central’s 250th journal with 250 cupcakes!
Science Open Access Sting
Operation and Predatory Publishers
Flawed sting operation singles out open access journals

by Martin Eve, The Conversation

In a sting operation, John Bohannon, a correspondent of Science, claims to have exposed dodgy open access journals. His argument seems to be that, because of their business model, some journals are biased towards accepting scientific articles, regardless of their quality. Sadly, Bohannon's operation adds little to what we already know.
What happened?

• Versions of a fake science paper submitted to 304 Open Access journals, claiming miracle cure for cancer had been found

• Papers include very serious mistakes; experiments are obviously flawed and therefore meaningless.

• Of 304 journals, 255 said that they would review the study and 157 journals accepted the paper to be published.
What does that mean?

• Bad news for Open Access?
  => The study did not include any non-Open Access journals so, no comparison possible

• Peer Review system is flawed

• It's the ethics of the publisher/journal, not the business model that determines quality and sound publishing and peer review

=> BioMed Central, Plos and Hindawi were not among those who accepted the paper
Predatory Open Access Publishers

**Beall’s List:** Potential, possible, or probable predatory scholarly open-access publishers

- Ethical standards established by membership organisations such as OASPA (Open Access Scholarly Publishers Association) or COPE
- Editor and staff
- Business management
- Integrity
Solutions

• Improve standards of Peer Review
  – COPE (Committee on Publication Ethics)
  – WAME (World Association of Medical Editors)

• BMC is running innovative peer review systems - all BMC series has "open review", BMC's aim is ultimately quality and transparency in an OA environment

• Peer Review Consortium
Publishing at BioMed Central / SpringerOpen

How does it work?
Business Model

Article-processing charge (APC) covers:

- **Editorial**: handling of manuscripts
- **Technical**: development, maintenance and operation of online journal system
- **Production**: Formatting and mark up of articles, inclusion in indexing services
- **Marketing**: Making sure readers and authors know about the journal
- **Customer service**: Responding to authors/readers
## BioMed Central & Springer Open Institutional Agreements

### Prepay Agreement
- Organisation covers the article cost (APC) for their researchers by deposit
- No membership fee
- Researchers do not pay anything
- Discount on the APC for institution
- Deposit available without time limits

### Shared Support Agreement
- Cost shared equally between institution and researcher
- No membership fee
- Additional discount on APC’s for researchers
- Deposit available without time limits

### Supporter Agreement
- Organisation does not cover the APC for the researchers
- Annual membership fee for institution
- 15% discount on APC’s – researchers pay less

### For all agreement types:
- Automated article feeds
- Institutional Members Page
- Marketing and PR support
- Automatic IP recognition or submission by code
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, 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 should you 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.

University of Pretoria has an institutional repository.

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

1. Primary research  [Open Access]
   The in vitro influences of epidermal growth factor and heregulin-beta1 on the efficacy of trastuzumab used in Her-2 positive breast adenocarcinoma
   Tracey Hurrell, Kim Outhoff
   Cancer Cell International 2013, 13:97 (11 October 2013)
   Abstract | Provisional PDF | PubMed

2. Research article  [Open Access]
   Comparison of the new Mycostat Revolution assay with a molecular assay for the detection of genital mycoplasmas from clinical specimens
   Mathys J Redelinghuys, Martie M Ehlers, Andries W Dreyer, Hennie A Lomboard, Marleen M Kock
   BMC Infectious Diseases 2013, 13:453 (30 September 2013)
   Abstract | Full text | POF | PubMed

3. Research  [Open Access]
   Continuous and batch cultures of Escherichia coli K1314 for succinic acid fermentation: metabolic flux distributions and production characteristics
   Carol D van Haarden, Willie Nicol
   Microbial Cell Factories 2013, 12:80 (17 September 2013)
   Abstract | Full text | POF | PubMed

4. Research article  [Open Access]
   Evidence for inter-specific recombination among the mitochondrial genomes of Fusarium species in the

Articles per page: 25 | 50 | 100
463 members in 51 countries

http://www.biomedcentral.com/inst/

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- Support for 20+ word processors
- 20+ built-in search engines

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- iOS syncing
- Bookmarklet

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Summary

• Open Access publishing is here to stay and it is growing fast
• Open Access has
• Springer works closely with authors and organisations to encourage Open Access
• OA is gaining importance at Wits University
• Involvement of universities, research organisations and funders
Thank you