

## Open Access Week (The 5th SPARC Japan Seminar 2009)

### “An open access business model and researchers’ attitudes”

## Open access publishing at BioMed Central

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### BioMed Central, an introduction

BioMed Central is the world's largest publisher of peer-reviewed open access journals with a portfolio of more than 200 online journals which span all areas of biology and medicine, as well as recently launched titles in chemistry, physics and mathematics. BioMed Central has published more than 55,000 open access articles to date and sees approximately 5 million articles accessed directly from its websites every month.

BioMed Central's open access policy means that all research articles are made freely and universally available via the Internet with no barriers to access. Authors of research articles retain copyright of their work while granting a universal license to allow the article to be freely redistributed and reused as long as correct attribution is given. Finally, permanence of articles is ensured by archiving copies of all articles in multiple repositories around the world.

There are three main groups of BioMed Central journals. The *BMC* series journals were the first journals launched by BioMed Central comprising approximately 60 broad-focused journals spanning biology and medicine. The independent journals portfolio is the most rapidly expanding group, with over 130 titles. These journals are run by external groups of scientists or societies who have full editorial control. Finally, there are six journals, which in addition to publishing open access research, also include commissioned review and commentary articles which are available to subscribers only. These include two of BioMed Central highest profile titles, *Genome Biology* and *Genome Medicine*.

### BioMed Central's business model

Across the business world, new technology has radically changed the competitive landscape. The power of the Internet to deliver low cost digital distribution of content has revolutionized the publishing industry, and is allowing new publishing models to emerge.

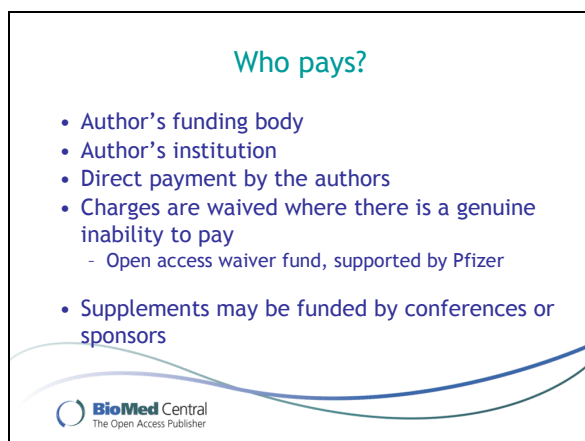


In traditional scholarly research publishing, the publisher obtains exclusive rights to content, and then sells access in order to cover costs. Under BioMed Central's open access model, in contrast, the publisher acquires no exclusive rights but instead charges a publication fee which directly covers the costs of publication. Such publication fees account for the major fraction of BioMed Central's revenue.

Because its systems have been built from the ground up to provide a streamlined and efficient online service, BioMed Central is able to keep costs down. Article processing charges (APCs) are mostly in the range \$1000-\$2000; significantly lower than the fee charged by most traditional publishers that offer an open access option.

As open access grows, the payment of open access publication fees is now increasingly routine, and publishing in open access journals is strongly encouraged by many funding agencies and institutions that are seeking to broaden access to the results of research. In order to minimize the barriers that might hold up the adoption of open access publishing models, an increasing number of funders and institutions are providing specific funds to cover these open access publishing fees for their authors.

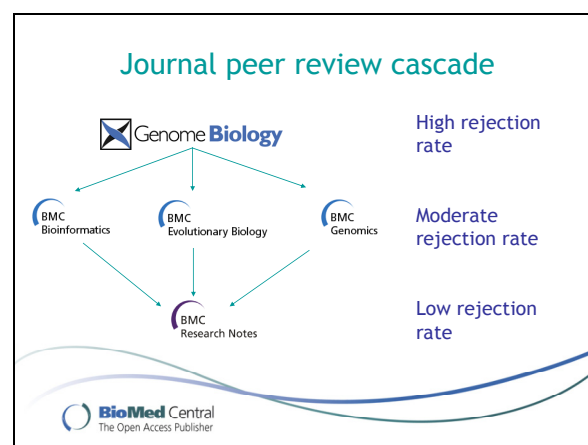
In order to ensure that authors in low-income countries are able to publish in open access journals, BioMed Central has established an open access waiver fund. The fund, which is supported by a Pfizer, ensures that authors from more than 90 low-income and low-middle income countries receive an automatic APC waiver when submitting to a BioMed Central journal. In addition, authors from any country who lack sufficient funds can request a discretionary APC discount or full waiver.



BioMed Central's Institutional Membership program provides a mechanism for institutions to centrally support and encourage publication in open access journals. Two types of membership are offered, the first of which is Prepay Membership where institutes choose to cover the cost of publishing in BioMed Central journals on behalf of their authors. Institutions deposit money with BioMed Central in advance to cover the cost of future publications; every time an article is published from that institution a discounted APC is debited from their account. By seamlessly handling the payment of APCs in the background, Prepay Membership both reduces administrative costs for the institution, and ensures authors do not face any financial barrier to choosing an

open access publication route. The second option, Supporter Membership, allows institutions to pay a modest annual fee, in return for which all authors from that institute will receive a 15% discount on the APC payable when they publish in a BioMed Central journal.

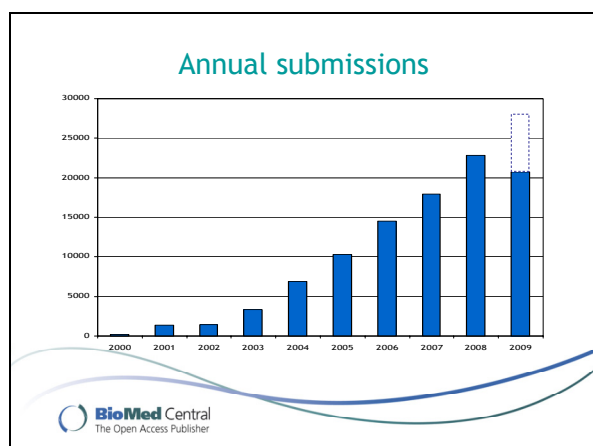
The high prestige journals in our portfolio, such as *Genome Biology*, attract a large number of submissions and have high rejection rates because only a small fraction of submitted articles are considered important enough to publish in the journal. A major benefit for authors submitting to *Genome Biology* is that if a rejected manuscript is judged to be scientifically sound, they may be offered the opportunity to transfer their submission to another title in BioMed Central's portfolio. With the authors' permission, the peer review reports can be passed on to the second journal so that the article does not have to start the review process afresh. This peer review cascade model saves time for authors and reviewers by avoiding unnecessary repetition of cycles of submission and review. It also provides a model which enables BioMed Central to publish high prestige, high rejection rate journals in an economically viable manner, while keeping APCs at a reasonable level.



Other sources of revenue for BioMed Central include journals with subscription content, as well as website advertising, email sponsorship and additional services like Open Repository – a hosted institutional repository service.

### Growth of BioMed Central

Since launch in 2000, submissions to BioMed Central's journals have grown rapidly. This year (2009), 30,000 submissions are expected, with approximately 1,000 of these likely to come from Japanese authors.



Alongside working to develop our existing titles, BioMed Central is continually looking for opportunities to grow its portfolio, both by launching new open access journals and by taking on the publication of existing titles. As the open access publishing model has become increasingly well established and proven, it has attracted the interest of many society journals, and several such journals have already transferred to BioMed Central and are benefiting from the increased visibility provided by open access. One such example is the society journal *Acta Veterinaria Scandinavica* which transferred to BioMed Central in its 46<sup>th</sup> year of publication and has since seen a significant increase in submissions and has almost tripled its Impact Factor (moving it to an upper-mid table position in its field).

Building on our success in biology and medicine, two new publishing platforms, Chemistry Central and PhysMath Central have also been launched, with both publishing a number of journals in their respective disciplines.

One of the key advantages of open access publishing for authors is that there are no barriers to accessing their work, maximizing visibility in its field. This is also highly beneficial when launching new open access journals as they can rapidly gain prominence in their fields, which has significantly helped BioMed Central's growth.

Another important driver of growth for BioMed Central has been building on the success of our journals in key areas by launching journals in closely related fields. When the *BMC* series was first launched, a rapid uptake of open access was seen in the fields of bioinformatics, genomics, cancer and public health. BioMed Central has since developed portfolios of journals in each of these areas expanding on the

original titles. For example in the field of bioinformatics in which we initially launched *BMC Bioinformatics*, we now publish titles including *Algorithms for Molecular Biology*, *BioData Mining*, *Biology Direct* and *Theoretical Biology and Medical Modeling*.

### Who pays?

- Author's funding body
- Author's institution
- Direct payment by the authors
- Charges are waived where there is a genuine inability to pay
  - Open access waiver fund, supported by Pfizer
- Supplements may be funded by conferences or sponsors

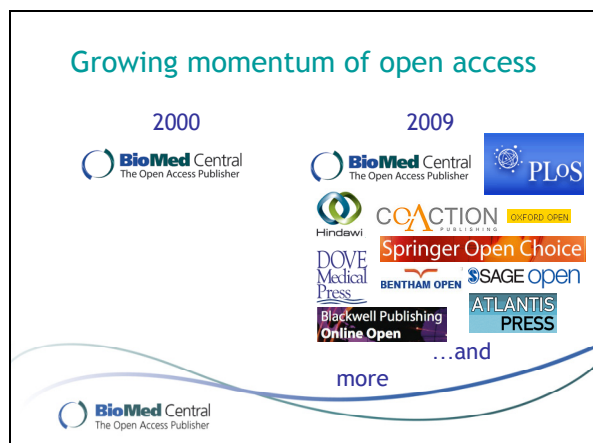
BioMed Central's strong focus on providing an excellent service to authors has also been a key contributor to our growth and development. We strive to ensure that authors have a pleasant and efficient experience publishing with us, and this is borne out in the results of our regular author surveys. BioMed Central's submission system, peer review tools and journal websites are all carefully designed by BioMed Central to meet the needs of our authors, reviewers, editors and readers. For example, BioMed Central has led the way with support for rich content within articles, making it possible to publish embedded movies or even embedded mini-websites within articles.

Submissions to BioMed Central's journals have also increased through our author communications, reaching out to authors through regular email call-for-papers, a bi-weekly 'BMC Update' (which is sent to nearly half a million recipients), social networking on sites such as Facebook and Twitter, and attendance at scientific conferences.

Impact factors have also played a key role in the growth and development of BioMed Central, with an immediate and dramatic increase in manuscript submission numbers being seen as soon as a journal receives its first impact factor rating. Already more than 60 BioMed Central journals have impact factors, and 30 more are already tracked and due to receive impact factors in the near future.

## The past, present and future

BioMed Central was the first publisher to focus on open access and continues to play an active advocacy role, promoting the benefits of open access to the research community. This has been very successful, with the result that open access is now a well established and proven publishing model and authors now have the benefit of a variety of open access options.



In recent years open access publishing has garnered significant support from institutions and funding bodies, with many mandating that their articles be deposited in open access archives. Many institutions are also setting up central funds to cover the costs of open access publishing fees, and establishing open access repositories to collect work emanating from their authors. BioMed Central is keen to support such initiatives and is seeking to make the process of depositing articles in repositories even easier for researchers. Using the SWORD protocol, and in collaboration with the institution concerned, we are able to send automated feeds of articles published by authors at a particular institution direct to that institution's repository. By making use of such

automated deposit feeds we aim to lift the administrative burden from authors having to manually place their articles in their repositories and to assist administrators in populating their repositories. We intend to launch this service early 2010, and it will be available automatically to all institutions that are part of BioMed Central's Institutional Membership Program.

In October 2008, BioMed Central was acquired by Springer Science+Business Media. This is a strong endorsement of the success of the open access publishing model that BioMed Central has pioneered. Springer's global infrastructure and market presence is now helping BioMed Central to expand its activities.

Looking forward, continued growth and development of BioMed Central's portfolio is anticipated with a number of new journals launching in 2010. New developments that will expand and improve BioMed Central's service to authors include additional support for article translations, major updates to the design of article PDFs and journal websites, and continuing enhancements to the online tools available to editors to manage the online peer-review process.

## Summary

- BioMed Central operates a successful open access business model
- We have developed a portfolio of 200 journals, many ranking highly in their respective fields
- Plans for continued growth and development, assisted by Springer's global infrastructure and market presence

## Profile



### Charlotte Hubbard

Charlotte Hubbard is based in Singapore and works as Journal Development Manager for BioMed Central, developing its portfolio of journals and business activities in the Asia Pacific region. Previously, she was Managing Editor of the Independent Journals portfolio having joined BioMed Central in 2004.

BioMed Central is a STM (Science, Technology and Medicine) publisher, which has pioneered the open access publishing model. Launched in 2000, BioMed Central has rapidly grown to become the largest open access publisher, currently publishing 200 journals spanning the whole of biology and medicine, and recently in chemistry and physics.