

Chapter 5

Publishing, Portland Press Limited and Portland Customer Services

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The *Biochemical Journal*, the Biochemical Society's flagship publication, predates the formation of the Society itself. It was founded in 1906 by Benjamin Moore, the holder of the first Chair of Biochemistry in the UK, at Liverpool University. The Biochemical Club, the precursor of today's Society, met for the first time in 1911 and almost immediately started to negotiate with Moore to take over the publication of the Journal. After lengthy discussions, noted by Trevor Goodwin in *History of the Biochemical Society, 1911–1986*, the Biochemical Club took over publication of the Journal in 1912 from volume seven onwards.

Professor Tommy Moore, Benjamin Moore's son, attended the Society's 75th anniversary celebrations in 1986, and had his father also been there he would easily have recognized 'his' Journal, as essentially little had changed from the early years of the century: paper and printing ink, copy marked up by hand, manuscripts, postal delivery – all were still in use. However, if Benjamin Moore could attend the Society's Centenary celebrations he would find his *Biochemical Journal*, and indeed the Society's other publications, altered out of all recognition. The past 25 years have seen a complete transformation in publishing, and in the field of science, technology and medicine (STM) publishing, the Society's publishing subsidiary, Portland Press Limited, has been at the forefront of that transformation. One thing which has not changed however, is that now, as then, publishing is key to the Society's activities, both as the core source of funding, but also as an essential component of the Society's mission to promote biochemistry and the molecular life sciences.

Something of these technological changes was foreseen by Goodwin in his chronicle of the Society's first 75 years. The chapter on the Society's publications concludes with the following prophecy:

"...but one is also aware of ongoing, vast technological (electronic) changes in the printing and communications industry. This could mean that eventually a 'soft' version of the Journal would be available at the authors' own computer terminals. This development, unless prudently handled, would undoubtedly increase costs and reduce circulation and, probably, revenue..."

It is fair to say that the Society handled these developments, and more, prudently.

In 1986, the publishing programme of the Society was managed, as it had been since its inception, by an Editorial Board for the *Biochemical Journal* overseen by a Publications Committee chaired by the Honorary Publications Secretary, who was a member of the Society's main Committee. The position of Honorary Publications Secretary changed hands in 1986. Professor Chris Pogson, who was employed by Wellcome at Beckenham, took over the post on the death of Dr Brian Ansell who had held the position since 1980. Before this, Chris had been Chair of the Editorial Board of the *Biochemical Journal* for 5 years. He was to be instrumental in driving forward the biggest change in the Society's publishing history: the formation of Portland Press Limited as a separate, limited company that would covenant its profits back to the Society for the furtherance of its charitable aims. Chris recalls that it was lucky that, at the time, he was working for what colleagues dubbed, "the University of Beckenham". Certainly his employers allowed him an enviable degree of freedom to pursue activities such as the Society's publishing programme.

The founding of Portland Press Limited

The launch of Portland Press (www.portlandpress.com) with its own Chair and Managing Director rendered the old Publications Committee redundant, although the post of Honorary Publications Secretary was not officially abolished until 1997 when it was decided that, as Portland Press was engaged in commercial publication activities, it was important for it to have a Chair who had some publishing or commercial background.

Glyn Jones, then Executive Secretary of the Society, recalls that there were practical administrative reasons for separating publishing and distribution into a distinct, limited company. The charity commissioners had been showing interest in the trading activities of charitable societies like the Biochemical Society, so forming a company would “keep the books straight”; indeed, other learned societies such as the Royal Society of Chemistry and the Institute of Physics had already gone down this route. Glyn saw no reason why the Biochemical Society shouldn't follow suit.

The first mention of the possible formation of the new company came in the minutes of the Executive Committee meeting of November 1987. Chris Pogson presented a report from the consultants, Comedia, on the feasibility of starting a publishing company. The report advised that the Society should steer well clear of the undergraduate and school textbook area as production would be expensive and there were many glossy books already available.

As the Society already published monographs there was enthusiasm to expand in this area. Trade sales were thought to be a specialist area in which the Society was unlikely to be successful. More enthusiasm was shown for moving into niche market areas. Journal expansion should be considered and co-publishing ventures should be developed further. The report expressed enthusiasm for the production of more videos, but warned against expanding into computer software. There were strong recommendations to employ marketing and commissioning staff.



Former Chairs of the *Biochemical Journal*'s Editorial Board: (from left to right) Tony Turner (1987–1994), Chris Pogson (1982–1987), George Banting (2004–2007), Peter Parker (2000–2003) and Ken Siddle (1995–1999). Chris Pogson and Tony Turner were also the first two holders of the position of Chair of the Board of Portland Press Limited (1990–1994 and 1995–2004, respectively)

The Committee agreed to set up a working party to construct an implementation plan with a budget of £7,500 for 1988. The working party was to consist of George Lunt, Brian Spencer (then the Society's Honorary Treasurer), A.J. (Tony) Turner, Richard Walker, Glyn Jones and Alan Beedle (the Editorial Manager), with Chris Pogson chairing. The company's unique selling point was to be that the Society's own members would choose to publish with it, providing a strong base from which to grow. Looking back, Glyn Jones thinks that, with hindsight, this was an over-optimistic aspiration. Nearly a year later, in September 1988, the working party reported back to the Committee. The main recommendations of their report were as follows:

- The Society will form a separate, wholly owned trading company to be known as Portland Scientific Press Limited¹.
- The purpose of Portland Scientific Press will be the establishment and maintenance of a coherent programme of publishing (including marketing and distribution) in biochemistry and related disciplines.
- Portland Scientific Press will aim to provide the Society with a secure source of income to support and augment the full range of its activities.
- Portland Scientific Press will advance the interests of biochemistry and related subjects by the dissemination of appropriate materials and information to specific readerships and audiences.

The report's general objectives stated that "it is likely that the appointment of a Commissioning Editor and/or a Production Manager will be necessary within 2–3 years". In the margins of his Committee papers, Glyn Jones had written, "What happens meantime?" This caution in re-organizing the Editorial Department and making new appointments may have been a contributing factor to what some members of the Portland Press Board were later to see as an unacceptably slow start to the business.

The report stated that the company would organize its affairs so as to repay the initial investment and move into profit within 5 years. The publishing activities of the fledgling company were grouped into the following areas:

- *Journals publishing.* The *Biochemical Journal* was to be the cornerstone of a publishing programme that would also include *Biochemical Society Transactions* and *Clinical Science*. The possibility of publishing a review journal in biochemistry and molecular biology would be considered.
- *Symposia.* Publication would move from one volume a year to three or four.
- *Specialist texts.* The publication of a series of short texts in a uniform series for the advanced undergraduate teaching market would be investigated. This programme would start in Year 3 at the earliest and ten volumes a year was thought to be a realistic target.
- *Handbook publication.* This would be determined by market research and it would be a considerable period before first volume could be published.
- *Videos.* A further two series of videos were planned, one for the school/university interface and the other aimed at the undergraduate market. Financial support for these would be sought from outside agencies.

The company's Board of Directors would consist of a Chair, Managing Director, Financial Director and three eminent scientists. These would be Society members who did not hold any other positions within the Society and who would be paid an honorarium. The post of Chair would be non-executive and could be considered as a parallel position to the Chair of the Publications Committee.

In the early period of growth, the position of Managing Director would be held by the Executive Secretary. It was envisaged that he might stand aside in favour of a full time executive appointment when the operation had expanded sufficiently. It was considered that specialist financial advice would probably be needed and would have to be brought in. In the event, this did not happen and Chris Finch, then the Society's Finance Manager and later Director of Finance and Planning, also became Finance Director of Portland Press.

¹The name was originally to be Portland Scientific Press in anticipation of the move to offices at Portland Place; this was changed to Portland Press a year later in September 1989 when it was discovered that the initials PSP were already being used by another organization.



The Society's Colchester premises.

The new company would take over most of the functions at the Society's membership and distribution depot in Colchester. The Society's charitable objective of promoting biochemistry and the molecular life sciences presented a problem for the Colchester side of the Society's operations: it was unnecessarily restrictive as they had the expertise and the capacity to handle publications on any subject matter. By separating the Society's publishing activities into a limited company, not bound by charitable status, opportunities to enlarge the distribution operations could be developed.

At the time "Colchester" seemed somewhat remote and isolated, and not only geographically. There was only minimal interaction between the Society's two offices and what there was could often be uneasy (the Society's membership was managed from London, but the membership records were held at Colchester), which at times led to tensions. When Glyn Jones arrived at the Society in 1984, he could see that the Colchester depot had potential and made a point of visiting regularly; he recalls that he had always felt that there would be long-term benefit in supporting Colchester even though a lot of the Executive Committee were ambivalent about its existence and probably quite favoured passing this area of the Society's operations over to the Royal Society of Chemistry. Glyn thought that if other organizations could make money from distribution and membership management there was no reason that the Biochemical Society couldn't do so as well.

Early days and conflicts

Portland Press was officially launched in 1990; the minutes of its first Board meeting record that Chris Pogson was its first Chair and Glyn Jones, the Society's Executive Secretary, was Managing Director. Professor Peter Campbell, Professor Peter Garland and Dr Athel Cornish-Bowden were the three Society-nominated Board Members. Staff in attendance were Chris Finch, the Society's Finance Director, Alan Beedle, the Editorial Manager, Sarah Andrews, the Executive Secretary's PA, and the newly appointed Marketing Manager, Edward Twentyman. Initial clients were The Company of Biologists, the *Journal of Reproduction and Fertility* and the Society for Experimental Biology. This first meeting also discussed contracts with the Federation for American Societies for Experimental Biology (FASEB), with the *Journal of Biological Chemistry* for the production of mini reviews and with the International Council for Scientific Unions. It was confirmed that *The Biochemist*, the Society's membership magazine, would continue to be produced by the Society, but would be distributed by Portland Press.

Portland Press had had to change its name before it even came into being (see footnote on page 77); however, later in 1990, an unexpected problem arose when the Society received a letter from a Mr Harry

informing the Society that he owned a publishing company, also named Portland Press, publishing in the science and technology market, and laying claim to the name. Vigorous legal correspondence ensued, as it appeared that this 'other' Portland Press had yet to publish anything at all. By November that year an out-of-court settlement had been reached to avoid the costs of a lengthy court case and nothing further was ever heard of Mr Harry and his publishing company.

From the beginning there were to be tensions between the commercially orientated company and the Society as its more academic parent body. In the first year, some members of the Portland Press Board felt that the company should distance itself from the Publications Committee of old by adopting a more aggressive commissioning policy and replacing the Executive Secretary as Managing Director with someone with more experience of commercial publishing.

The minutes of the Portland Press Board Meeting of September 1990 record that Glyn Jones explained to the Board that it was unlikely that the Society's Trustees would approve of any move to loosen the Board's ties with the Society by removing the Executive Secretary from his position as the Managing Director. He explained that the Executive Committee must retain the ultimate authority over the publishing company as the relationship between the Society and Portland Press was not that of a strictly commercial company, and that the Executive would not want to divest itself of control over a large sector of its activities. Despite this advice, the Board moved to vote on the matter with the votes splitting 50:50. With the knowledge that any decision made by the Board with regard to the Executive Secretary continuing as Managing Director of Portland Press would be overruled by the Society's Trustees, Chris Pogson recalls that he had little option but to use his Chair's casting vote to preserve the *status quo*, much to the chagrin of those Board members who were keen to pursue a more independent path. In fact, the position of Managing Director of Portland Press continued to be held by the Society's Executive Secretary until 2000, when Rhonda Oliver assumed the position, which she held until 2010.

Past Chairs of the Portland Press Board recall that it was often difficult to persuade the members of the Society's Executive Committee to take the necessary risk and provide sufficient investment income for the publishing subsidiary. An early example of where the Executive's prudence came into conflict with the more entrepreneurial spirit of Portland Press was with the Minerva project. Conceived by Chris Pogson, Minerva (named for the goddess of science) was to be an intermediary step between *Current Contents*, with its simple listing of journal contents pages, and the published full reviews of *Trends in Biochemical Sciences*. A team of in-house writers would write articles featuring and setting in context papers about to be published in leading peer-reviewed journals, not just those of the Biochemical Society. As these articles would act as an advertisement for the forthcoming paper it was thought that the journal publishers would welcome the raising of their profile. However, the project was regarded with scepticism by the staff members of the Board. Members of the Portland Press Board were supportive of the project, as were some members of the Society's Executive Committee. However, the Society was being asked to put money into an untried project at a time when the *Biochemical Journal*, the main source of income, was making less money than it had done previously, and so support was not forthcoming.

Book publishing

Portland Press' business plans for the first years of its existence focused on book publishing. Journals, especially the flagship *Biochemical Journal*, were to be sustained, but the company saw its future in books.

Following the retirement of the Editorial Manager A.J. (Tony) Evans, his then deputy, Alan Beedle, had been promoted to the position in 1987 and Rhonda Oliver joined the Society as Deputy Editorial Manager in the same year. Portland Press had only been in existence for a few months before the management realised that it was not practical to run a book publishing programme on the back of the existing journal work and so Rhonda Oliver took on new responsibilities as Commissioning Editor for book publishing.



The *Making Sense of Science* children's books. The first book, *Microbes, Bugs and Wonder Drugs*, was published in 1995. Among the contributors to the series were (left to right) David Walker (author of *A Leaf in Time*), Mike Painter (author of *Satellite Fever*), Fran Balkwill (Series Editor and author of *Microbes, Bugs and Wonder Drugs* and *SuperCell*), David Bellamy (author of *Poo, You and the Potoroo's Loo*), Helen Sharman (author of *The Space Place*), David Phillips (author of *Light Up Your Life*) and Mic Rolph (Series Illustrator).

At the time, serials publication was facing a crisis: the burgeoning discipline of biochemistry was generating more and more published papers, leading to vastly increased print and production costs. This was at a time when, in the UK at least, academic library budgets were being cut. The Society needed a publishing strategy that could help it sustain and if possible grow its income (in 1986, 93% of income came from publishing and membership income was falling).

Book publishing was an attempt to diversify and to move away from being a one-product company. At the time, there appeared to be no opportunities forthcoming to start or acquire new journals. The company had excellent worldwide biochemistry contacts and high-quality editorial staff, so a move into monograph production seemed logical; other publishers were also taking this route. There were plans to break into the textbook market, despite the earlier advice from consultants on the establishment of Portland Press (see page 76); as a learned society it was felt that, through the members, Portland Press would have greater access to the market than commercial publishers.

The programme started well; some books, Athel Cornish-Bowden's *Fundamentals of Enzyme Kinetics* for example, were best-sellers (4,400 sales). Other best-sellers included a study guide by Rob Beynon, *Postgraduate Study in the Biological Sciences*, with sales of 4,493 and *Understanding Metabolic Control* by David Fell (3,985 sales). Some titles have had a remarkably long life: *The Biology of the Tardigrades* edited by Ian M. Kinchin, was first published in 1994 and print-on-demand copies are still being sold today. The year 1993 saw the company start to publish books on behalf of other societies – one of the first titles was *Women Physiologists*, published on behalf of the Physiological Society, which attracted critical acclaim. By 1994, 11 titles had been published.

A significant departure from the normal pattern of scholarly publishing came in 1994 when the *Making Sense of Science* series of children's books was launched. Conceived by Chris Pogson and commissioned by Rhonda Oliver, this series of colourful illustrated books covering a variety of scientific topics was a big success; eventually over 27,123 copies would be sold and the rights to translated versions sold in several

countries. For example, the Turkish version is currently on its 19th reprint and the company recently received a royalties cheque for £25,000 for this version. Professor Fran Balkwill, then Professor of Cancer Biology at St Bartholomew's Hospital and the London Queen Mary's School of Medicine and Dentistry, acted as the Series Editor and wrote the first book in the series, *Microbes, Bugs and Wonder Drugs*, which has accounted for 9,325 of the series' sales. A key feature of the series was Mic Rolph's fun and lavish illustrations. *Microbes, Bugs and Wonder Drugs* was launched with a reception at the Royal Institution and a photocall at the Wellcome Collection featuring botanist and television personality David Bellamy, who was himself to write a later title in the series, *Poo, You and the Potoroo's Loo*. Indeed the author list for this children's series reads as a roll call of eminent UK scientists with Steven Rose (*Brainbox*), David Phillips (*Light Up Your Life*) and Helen Sharman, British astronaut (*The Space Place*), among the authors of the eight titles commissioned for the series. External recognition for the series came in 1996 when *Microbes, Bugs and Wonder Drugs* was shortlisted for the Rhône-Poulenc Junior Science Book Prize.

Portland Press Inc.

Within the first year of its existence, Portland Press was looking to expand into the American market and recruited Bill Whelan to the Board as a US representative. Although initially intended to benefit the *Biochemical Journal* by increasing its visibility and consequently submissions and subscriptions, it was soon realised that an American presence was necessary for the development of the books publishing programme too. Glyn Jones recalls that, at the time, the Biochemical Society was not the best badge to have in the USA. In America, there were elements of affirmative action – American universities were buying preferentially from American publishers. It was thought that if publishing and distribution could be incorporated in the USA as a not-for-profit company, there would be tax advantages and sales in the American market would benefit.

Tony Turner, then Chair of the *Biochemical Journal* Editorial Board who was to take over as Portland Press Chair on the retirement of Chris Pogson in 1994, agrees with this reasoning: the *Biochemical Journal* was not seen as an international journal, it tended to be regarded as “The British Biochemical Journal”. The aim of developing Portland Press Inc. in the USA was to make the journal truly international.

Portland Press needed an American partner. Edward Twentyman, who had been appointed the company's first Marketing Manager, visited the USA and presented the Board with a shortlist of possibilities at its September 1990 meeting. The chosen option was to go into business with Neil Patterson who ran a small, specialist publishing company in Chapel Hill, NC, and who had a track record in biochemical publishing, having published the standard textbook by Lehninger. The minutes show that all the Board members felt some residual doubt as to why Patterson should present such a favourable proposal that seemed to have only modest benefit to himself; however, they decided that a proposal would be put to the Executive Committee that Portland Press Inc.



Tony Turner; Chair of the *Biochemical Journal* Editorial Board (1987–1994) and Chair of the Portland Press Board (1995–2004).

should be formed in the States in partnership with Patterson's company. By February 1991, the company had been formed and Neil Patterson had published *A Blueprint for a Cell* with 750 copies to be sold under the Portland Press imprint. Patterson was considering the publication of another textbook and Portland Press was initially keen to replace 'Lehninger', which was considered rather dated by some. However, the cost of marketing, printing and distribution were prohibitive and the project was eventually considered too high risk and abandoned. In 1993, *Clinical Detective Stories* was published by Patterson and Portland Press Inc., the only book to be published by the company from America. Distribution and warehousing in America were handled by Ashgate Publishing from a converted farm in Vermont. After the takeover of Neil Patterson's company by Simon and Schuster in 1992 the partnership waned.

For book sales to have really taken off, a significant investment would have been needed in marketing and distribution in the USA. Portland Press could not justify this investment. This may have been one of the contributing factors to the decline in book sales. In due course, the *Biochemical Journal* would open an Editorial Office at the Burnham Institute in La Jolla, CA, in 2001. This was a significant step for the Journal, but Tony Turner notes that for this office to have worked well in terms of more general publishing, the Society would have needed to have invested more money, which would not have been appropriate or affordable; however, as an Editorial Office, the arrangement has worked well.

In 1996, when books were costed to an individual level for the first time it was realized that they were not really adding anything to profits. The book programme was scaled back leaving titles such as *Essays in Biochemistry* that had a solid reputation and more energies were put into acquiring new journals. In 1997, the company's publishing portfolio was restructured following the decision to cut back on books.

More than one of the past Chairs of Portland Press has commented that the more cautious, academic approach of the Society's Trustees led to commercial opportunities being missed. There were often tensions between Society officers and the Portland Press Board, as might be expected with the strong personalities on both the Board and on the Executive Committee. A common complaint from the Portland Press side was that people did not see the broader picture and regarded the *Biochemical Journal* primarily as a source of income. Some doubted the Executive's ability to see that Portland Press could broaden the portfolio of the Society – the prevailing view was held to be that the Society was 'meetings', and 'meetings' were the Society, with other things being regarded as peripheral and not central to the Society's aims.

Portland Press sought to establish itself as an independent, professional company. Display stands at international meetings, which were initially shared with the Society, were soon replaced by independent, professionally designed stands. The company's first stand at the 1991 ASBMB (American Society for Biochemistry and Molecular Biology) meeting was regarded as very amateurish; Tony Turner recalls that "it made us look like eccentric Brits against the professional, slick stands of the other publishers; we realized we had to get more professional".

IT and electronic publishing

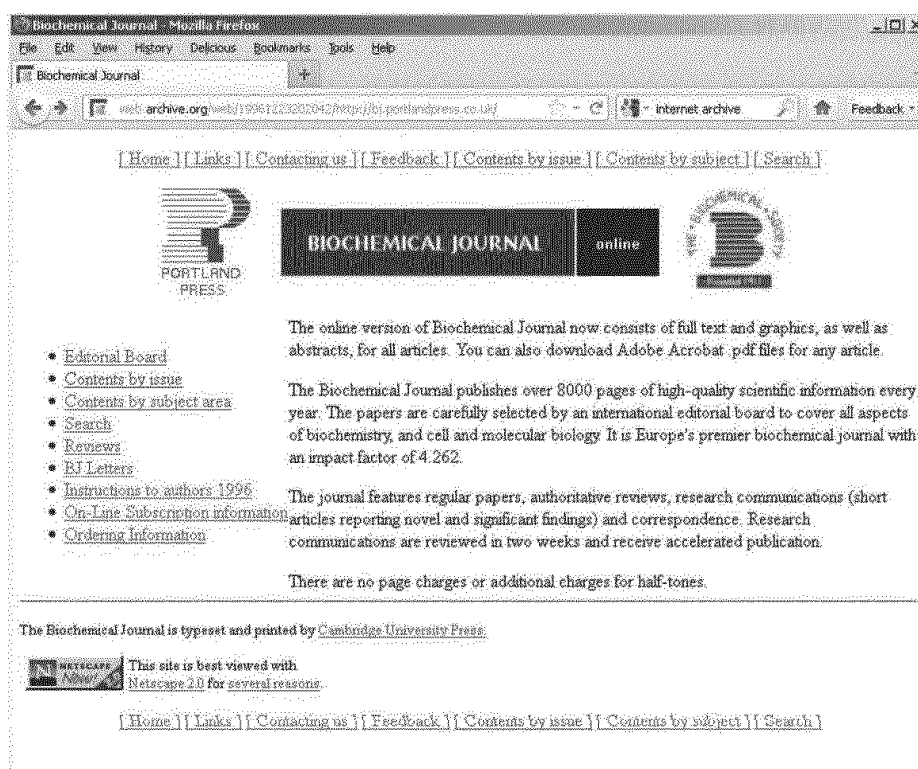
It was at another ASBMB meeting, in 1995, when the defining moment came that was to set the seal on Portland Press' development into a respected innovator in STM publishing. The *Biochemical Journal*'s rival, the *Journal of Biological Chemistry*, had gone online in April of that year. At the ASBMB meeting the following month, there was a demonstration of the online journal, and Rhonda Oliver, who was at the meeting, recalled that the *Journal of Biological Chemistry* stand was mobbed every day. She came back from the meeting convinced that online was the way to go.

The Society and Portland Press had long appreciated the need to invest in up-to-date IT (information technology). Both for the production of publications and for managing membership and distribution, good computing systems were vital. Investment in IT had, at least in the early days, mixed results. The minutes of a Society committee meeting in 1987 record that although the computer consultants employed to upgrade the

Society's IT were finalizing the editorial system, faults had delayed its introduction, while the cost of replacing the membership and distribution system in Colchester looked likely to be in the region of £100,000 rather than the £30,000 originally quoted. The meeting unsurprisingly took the decision to cancel the agreement and to upgrade the existing hardware and software for £20,000 instead. However, by the beginning of 1989, the Committee minutes were able to record that the Editorial Office computer system was running well and enquiries to use it had been received from Nature Publishing and Blackwells.

The system eventually chosen by the then Marketing Manager, Edward Twentyman, to run membership and distribution at Colchester was called VISTA. Although agreement had been reached to install it, delays ensued and, in March 1992, the Committee learned that installation was running 2 years behind schedule; in practice, the system was in use by the end of 1993. VISTA always had problems and when it was realized that the system had significant 'Y2K' compatibility problems it was replaced with the TIMSS subscription and membership management and products inventory system. This was a huge investment for the Society at around a quarter of a million pounds, but it proved to be a key development as it enabled Portland Customer Services (as the Colchester end of Portland Press became in 2000) to offer membership management services for external client organizations. The first such client was the International Water Association, who had initially been just a journals fulfillment client as the VISTA system could not be used for membership management. However, as TIMSS could handle the Association's complex membership requirements, it would be possible to offer this service to others. The TIMSS system was deployed very rapidly: although its implementation only started in 1999, by June 2000 it was live. The growth in business at Portland Customer Services, overseen by Adam Marshall (Group Head of Marketing and Customer Services), has seen the number of clients increase to about 40 by 2011 and the number of staff in the Colchester office increase from 10 in 2001 to 32 in 2011.

In the Executive Committee's report to the 1997 AGM, there is just one, almost incidental sentence "The Society now has a home page on the World Wide Web". It is interesting to speculate whether anyone



The *Biochemical Journal* homepage when it went live on the Internet in 1996.

at that meeting had any idea as to the profound changes that the Internet would so soon bring to science research and publishing. But even before the Internet revolution, changes were being introduced to the publishing process. As Chair of Portland Press, Tony Turner introduced the use of fax for the submission and peer review of rapid communications for the *Biochemical Journal*. There was concern that the reproduction quality would not be good enough, but it worked well because, unlike cell biology, most biochemistry papers did not contain micrographs. For the small percentage of papers where this was not the case, the authors still had to send in the figures for their papers in hard copy for the reviewers to see.

In 1995, despite the *Journal of Biological Chemistry*'s innovative use of the Web, people were still very unsure as to how it would develop. The *Journal of Biological Chemistry* had been publishing on CD ROM, and there was a lot of pressure for Portland Press to follow suit with the *Biochemical Journal*. Rhonda Oliver and John Day (who had become IT Director for the Biochemical Society in 1995) resisted this as they felt that the Internet was the way to go, even though this required quite a leap of faith.

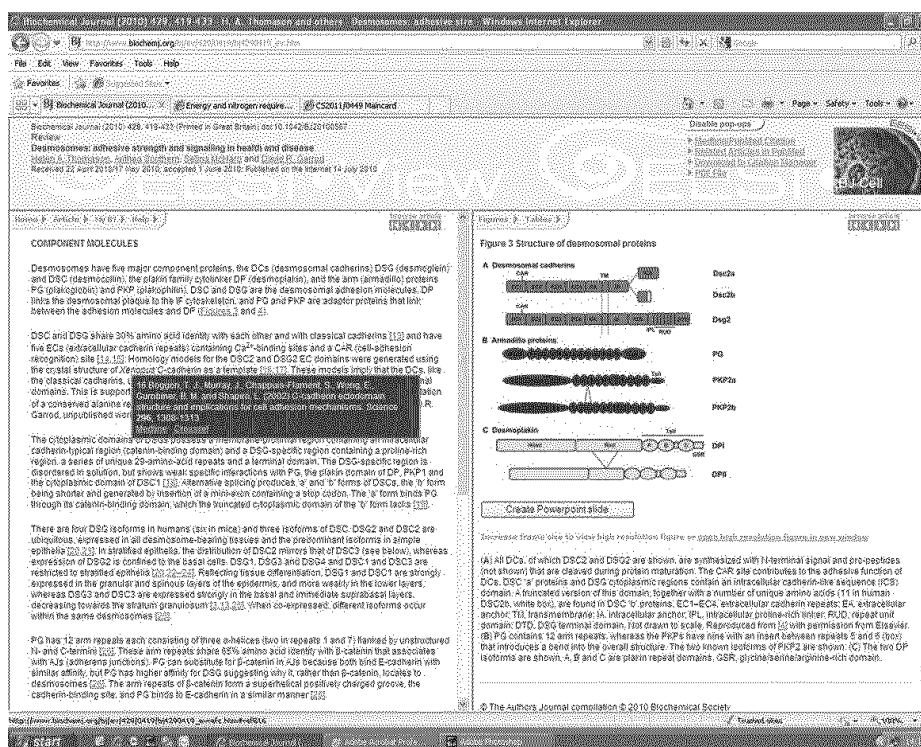
Initially Cambridge University Press, who typeset and printed the *Biochemical Journal*, did not have the technical know-how to put material on the Web. Rhonda Oliver and the editorial staff believed they would have to code the papers themselves and embarked on a SGML mark-up course. Eventually Cambridge University Press were persuaded (by the threat of removing the business) to undertake the required Internet markup, but this had to be done by hand. John Day recalls how, in 1995, nothing was available "off the shelf" as far as Web publishing was concerned; everything had to be built in-house.

One of the challenges in publishing scientific content on the Web was how to display special characters e.g. Greek letters and subscript and superscript text. In 1995, the Web browsers of the time could not display these characters and they had to be replaced with images representing the characters. The nature of the *Biochemical Journal*'s content meant that it would be impractical for this to be done by the typesetter. The release of the Netscape browser version 1.2 enabled the use of subscript and superscript text. This development meant that the typesetter did not have to create images of text in this format, but merely for special characters such as Greek letters.

In October 1995, the initial trials of publishing *Biochemical Journal* review articles online were successful and by January 1996 the Journal had gone online. The whole process had taken just 7 months from start to finish. John Day recalls that the initial website was a machine under his desk in the office: "The early *Biochemical Journal* website was held together with duct tape and string as we wondered whether the Internet would be a fad. Over the next decade we built the electronic journal platform that forms the basis of our electronic publishing in 2011". One of the key developments was the access control system, IPCheck, which allowed Portland Press to provide seamless access to the journals for scientists at subscribing institutions. This provided the first insight that maps of the IP addresses of customers would become the subscriber lists of the 21st Century.

In 1998, before the arrival of Scholar One™ and similar peer-review systems, ASBMB had developed their own in-house Online Submission and Peer Review System (OSRS). Portland Press licensed this system from ASBMB in 2001 and modified it to suit their requirements. By 2005, the limits of the underlying technology of OSRS led Portland Press to migrate this system to a new platform. Andy Gooden and Allan Conybeare developed the replacement system, Sirius, an entirely Web-based peer review system, and this went live in 2007.

From the beginning, Portland Press showed a real understanding of the potential and benefits of the emerging technologies. They were one of the first publishers to offer online access that was initially free. A key decision that was taken early on was not to split electronic and print subscription. The *Journal of Biological Chemistry*'s Editorial Board had estimated that print copies would stop by 2000, but although most new journals tend to be online only, print still exists in 2011. The acknowledgment that the company's success was dependent on innovation and development in IT meant that Portland Press would continue to press the parent Society for sufficient investment. For example, in November 1992 the Executive Committee



EESI-View, launched by Portland Press for the *Biochemical Journal* in 2004, provided an alternative to the traditional way of displaying and reading online journal articles.

agreed to spend £60,000 on hardware and software for on-screen editing as it was estimated that this would lead to around £75,000 per annum savings over the following 4 years. It was this sort of investment in innovation that kept the *Biochemical Journal* ahead in its field.

In 2004, Portland Press launched EESI-View², which provided a non-linear way of viewing an article as it was realised that people did not read a scientific paper from beginning to end; usually they would look at the title, the authors, images and the reference list (to see if they were cited) – and only then would they read the abstract. Peter Parker, who had become Chair of the *Biochemical Journal* Editorial Board in 2000, was instrumental in the development of EESI-View and the Board credits it with being one of the main reasons that Sir Michael Berridge approached Portland Press to publish *Cell Signalling Biology* (see page 93). The software was developed in-house by John Day and Andy Gooden, and was truly innovative. In some ways it was perhaps ahead of its time as it was Web-based at a time when WiFi was not used and portable Web access didn't exist. People were also committed to the portability of PDFs. Portland Press staff consider that Elsevier's recently launched 'article of the future' is in fact very similar to EESI-View. By 2006, EESI-View was in use across all the online journals published by Portland Press and had been shortlisted for the Association of Learned and Professional Society Publishers (ALPSP)/Charlesworth Innovation Award, a category in which it was highly commended. A UK patent was granted in 2006.

Another development was Orion, a Web-based reporting tool developed by John Day and Adam Gibson. Orion allowed Portland Customer Services clients to access their own member or sales statistics and to download their own reports. Portland Press has remained an innovator in publishing IT; more recent developments have included The Semantic *Biochemical Journal*, launched in 2009 (see page 88).

²EESI-View, Enhanced Electronic Serials Interface.



John Clark: Chair of the Portland Press Board, 2005–2010.

The *Biochemical Journal*

The first line of the *Biochemical Journal*'s "Instructions to authors" states "The *Biochemical Journal* publishes papers in English in all fields of biochemistry and cellular and molecular biology, provided that they make a sufficient contribution to biochemical knowledge". Since its foundation in 1906, the *Biochemical Journal* has certainly contributed to biochemical knowledge, and also contributed to the success and prestige of the Society and Portland Press. Continued innovation and commitment to high editorial standards has helped to keep the *Biochemical Journal* in the forefront of biochemistry and the cornerstone of the Society's publishing portfolio.

In 1985, the Journal changed printers and underwent a substantial change in format. Changes continued with 'rapid papers' being replaced by 'Research Communications' in 1991, which in addition to receiving accelerated treatment, had to

satisfy stringent novelty and significance criteria. After going online in 1996, hyperlinking of references to other MEDLINE® journals had been implemented in 1997.

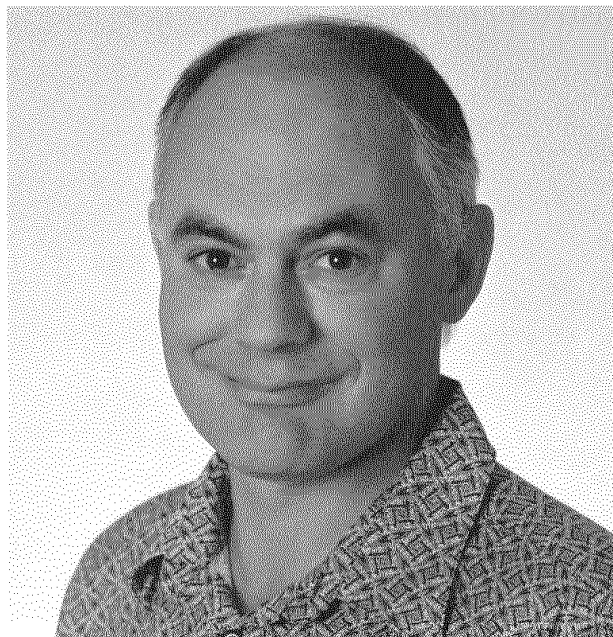
Speed of turnaround of papers is crucial to the Journal's success. By 1998 the handling times on the *Biochemical Journal* had improved so that for Research Communications the average time from acceptance to publication was a little over 7 weeks with full papers taking around 12 weeks. Electronic versions of papers were posted 1 week before the issue date, thereby further reducing handling times.

Services to subscribers and Society members continued to improve. In 1999, electronic access to the Journal archives was made freely available; free colour reproduction was offered to members and to authors of Research Communications. Online subscriptions were introduced in 2000 and included free personal online subscriptions for Society members to the Journal and to *Biochemical Society Transactions*. During this time, the profile of author submissions to the *Biochemical Journal* changed significantly. In 1994 citations had shown that the Journal was the premier journal in Europe for biochemistry. By 1997, there had been a marked decrease in the number of submissions from the UK (23% of total in 1992; 16% in 1997). In 1997, 38% of submissions came from the rest of Europe, 26% from North America, 8% from Japan and 12% from the rest of the World. The decline in UK submissions was attributed to the adverse effect of the Research Assessment Exercise, where research excellence in UK universities was measured in part by publication in journals with a high Impact Factor. The Portland Press Board's strategy to counter this decline was to continue to try to improve the impact of the journal.

In order to offer a better service and to encourage more submissions from both North and South America, Guy Salvesen, from the Burnham Institute, La Jolla, CA, was appointed as Vice-Chair for the Americas, and an Editorial Office was established at the Burnham Institute. The new office opened in January 2001 and was launched at the Experimental Biology Meeting in Orlando, FL, in April of that year. By 2002 submissions to the *Biochemical Journal* from North America had increased to 27.5% of the total (the UK accounted for 14.5%). By this time, the Journal's Impact Factor had gone up to 4.589, an improvement, but still short of the magic figure of 5 that would lead to it being deemed a high-impact journal for research selectivity purposes.

The *Biochemical Journal* celebrated its Centenary in 2006. The first event to mark the Centenary was a reception in London at the British Library on 18 February to celebrate the digitization of the complete archive of the *Biochemical Journal* from 1906. The project was sponsored by the Wellcome Trust and JISC and the archive was deposited in PubMed Central as well as being made freely available on the Journal's website. Celebrations in the anniversary year continued with a full-day symposium held as part of the BioScience2006 meeting in Glasgow. The symposium, entitled 'Literature, Legacy, Life... Biochemistry for 21st Century', featured presentations from Mike Waterfield, Louise Johnson, Alfred Goldberg, Mina Bissell, Donny Strosberg, Steve Huber, Stephen O'Rahilly and Lewis Wolpert. In addition, a 'BJ Classics' series of articles, edited by Dick Denton, was launched in 2006. The series comprises commissioned articles written by contemporary researchers highlighting seminal papers that have been published in the *Biochemical Journal* since its founding in 1906. Robert Freedman took over as the Editor of this series in 2010.

Innovation continued into the Journal's second century with the introduction of a new Web interface in February 2007. This '21st century' *Biochemical Journal* had seven so-called "Knowledge Environments". Each Knowledge Environment acts like a virtual journal with its own Editorial Board, under the overarching *Biochemical Journal* umbrella (BJ Central) and allows authors and readers to identify with their own



Guy Salvesen became the *Biochemical Journal's* first Vice-Chair, the Americas, in 2000.



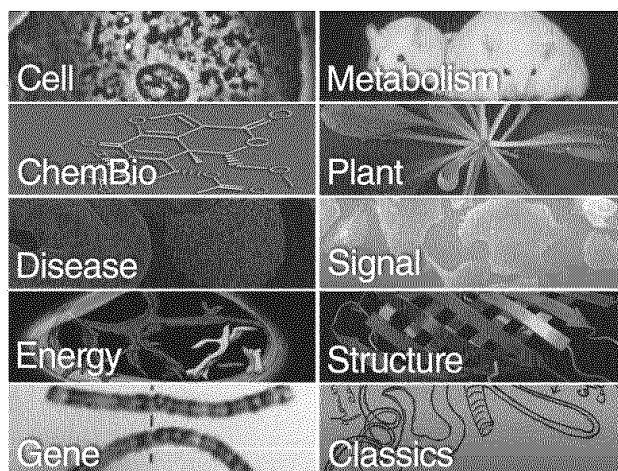
Sir Philip Cohen (President of the Biochemical Society) presents the *Biochemical Journal's* digitized archive to Lynne Brindley (Chief Executive of the British Library) in February 2006.



The Editorial Board of the *Biochemical Journal*, along with senior Portland Press staff, at the celebrations that marked the Journal's Centenary in Glasgow in July 2006.

community. Two further Knowledge Environments, BJ Metabolism and BJ ChemBio, were launched in 2009. The continued innovation and progress made by the Journal has achieved external recognition. In September 2007, the *Biochemical Journal* won the ALPSP/Charlesworth Award for Best Online Journal and in June 2010 the landmark Impact Factor of 5.155 was achieved.

The most recent innovation is The Semantic *Biochemical Journal*, developed in a collaboration between Portland Press and the University of Manchester. This uses new software, Utopia Documents (<http://getutopia.com>), to link documents dynamically to research data, enabling readers to interact with and manipulate the information in the Journal's scientific papers more effectively. The Utopia software differs from other semantic publishing programmes by having editorial staff carry out text mark-up, ensuring rigour and consistency. It 'overlays' the additional, semantic data on to the existing PDF version of articles, rather than embedding it into the text initially where it cannot be subsequently altered. Static images, tables and text are turned into objects that can be linked, annotated, visualized and analysed interactively. Terms and phrases in the paper are linked to external websites, glossaries and databases. Extra data such as images and videos can be embedded into the text and there are links to interactive tools to manipulate protein sequences and to see molecular structures in 3-D.

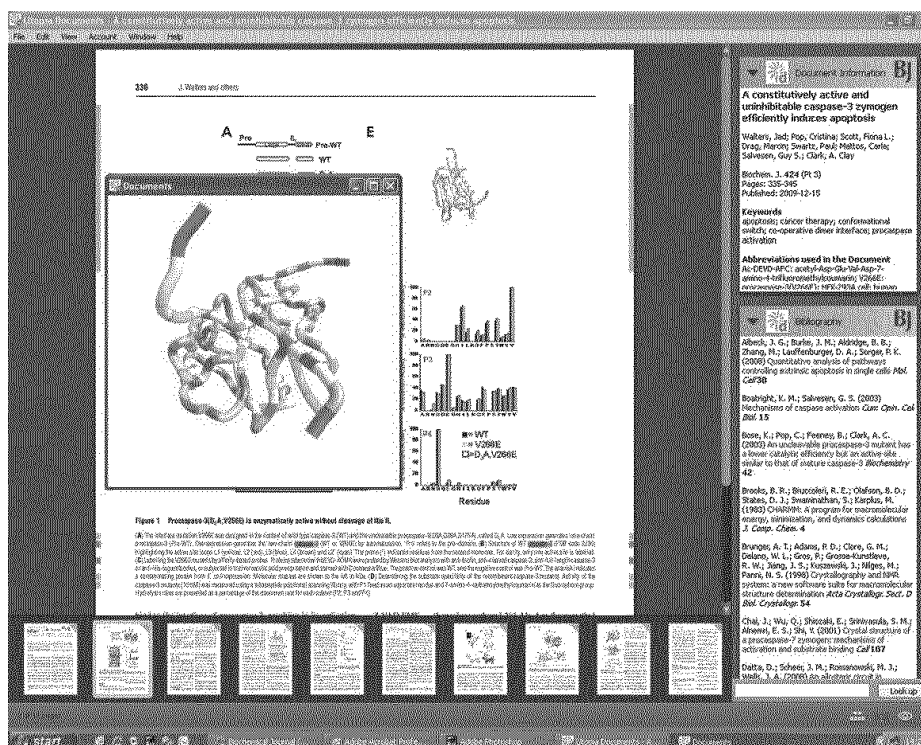


The nine Knowledge Environments (plus BJ Classics) that constitute the *Biochemical Journal* in 2011.

A talk on data mining by Peter Murray Rust at the Frankfurt Book Fair was the starting point for Portland Press' interest in the semantic web. Realizing that this was an area that could be developed, the *Biochemical Journal* Editorial Committee set up a technology sub-committee; this sub-committee identified Professor Terri Attwood and her team at the University of Manchester who were already working on the Utopia software. The Semantic *Biochemical Journal* was launched at a reception at the British Library in December 2009. As well as giving the Journal a competitive edge, the Utopia software can be licenced to other publishers, providing an additional revenue stream for Portland Press.



Portland Press staff and George Banting (Chair of the *Biochemical Journal* Editorial Board) with the 2007 ALPSP/Charlesworth Award for Best Online Journal: (left to right) Pauline Starley, Mark Thorne, Rhonda Oliver, John Day, Audrey McCulloch, George Banting and Andy Gooden.



The Semantic *Biochemical Journal*. When viewed with the Utopia Documents software, the PDF versions of articles are enriched semantically in a variety of ways that help to enhance the user's online reading experience.