British Journal of Pharmacology

DOI:10.1111/j.1476-5381.2011.01239.x
www.brjpharmacol.org

Themed Issue: Respiratory Pharmacology

EDITORIAL

Special issue of *BJP* on respiratory pharmacology

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Received
30 December 2010
Revised
18 January 2011
Accepted
18 January 2011

Linked Articles
This article is part of a themed issue on Respiratory Pharmacology. To view the other articles in this issue visit http://dx.doi.org/10.1111/bph.2011.163.issue-1

Why is *BJP* dedicating a special issue to respiratory pharmacology?

The idea for this special issue of *BJP* on respiratory pharmacology started over 2 years ago, when quite unexpectedly, the Journal began to experience a surge in submissions of manuscripts dealing with airway pharmacology, inflammation and immunology. As a result of the increase in submissions, in September 2009, with the approval of our new Editor-in-Chief, Ian McGrath, *BJP* expanded the number of editors in 'Respiratory System Pharmacology' (in addition to keeping our core group and other editors whose expertise included inflammation and immunology). The new additions of *BJP* editors included Burton Dickey, Rey Panettieri, Ray Penn and Julia Walker. We also persuaded Maria Belvisi to return to the *BJP* editorial board and serve another term after a few years absence. We are still not sure what prompted this increase in respiratory manuscripts, but feel certain it has been a clear benefit to the Journal. We therefore wanted to build on the interest in respiratory pharmacology and the expertise of our Editorial Board. As guest editors of this issue we drew up a list of topics we hoped to cover, and then identified world experts to contribute. This was a slightly biased list in that most of the authors were familiar with the Journal's reputation. However, we were still pleasantly surprised that with only one or two exceptions, all of our invited choices enthusiastically agreed to be a contributing author.

About *BJP*

This issue was planned to coincide with and be distributed at the American Thoracic Society (ATS) in May 2011. We therefore would like to give a few facts about *BJP* for those ATS members and respiratory researchers not familiar with the Journal. *BJP* (*British Journal of Pharmacology*), along with *BJCP* (*British Journal of Clinical Pharmacology*), are the two journals of the British Pharmacological Society. As of the latest impact factor (IF) rankings, *BJP* had an IF of 5.2, which compares well not only with similar content journals from the American Society for Pharmacology and Experimental Therapeutics: the *Journal of Pharmacology and Experimental Therapeutics* (*JPET*, IF = 4.1), and *Molecular Pharmacology* (*Mol Pharm*, IF = 4.5); but also with journals from respiratory societies publishing original basic research studies. For example, the *American Journal of Respiratory Cell and Molecular Biology* (*AJRCMB*, IF = 4.3) from the ATS, and the original research journal of the European Respiratory Society, *European Respiratory Journal* (*ERJ*, IF = 5.5).

However, while the IF makes *BJP* competitive with other prominent society journals, there are other qualities of *BJP* that have persuaded respiratory researchers to add *BJP* to their list of possible journals for submitting their work. *BJP* makes a sincere effort to be the 'international journal of pharmacology'. We use the word 'international' here in two senses. First, *BJP* has an international reputation. It has published numerous papers considered as classics including many papers that have essentially developed and defined receptor theory. Its Editorial Board represent 21 countries. As reflected by its IF, *BJP* does draw top submissions from all the nations with large research support and infrastructure. The 2010 rankings of the top five countries publishing the most manuscripts in *BJP* are the UK, USA, Japan, Germany and Spain. However, it is important to note that *BJP* published manuscripts from a total of 33 countries.

This latter point is evidence why in another sense *BJP* is also the 'international journal of pharmacology'. The British Pharmacological Society strives as part of its mission to be inclusive of facilitating publishing quality pharmacological works from all countries. For example, the British Pharmacological Society has negotiated with its publisher, Wiley-Blackwell, to not have any page charges for accepted manuscripts. Furthermore, *BJP* is one of very few biomedical

journals that also has no added charges for colour figures. These are important factors for research groups working in less affluent countries (and perhaps even of some importance in affluent countries experiencing budget cuts). None of the competing journals mentioned above offer to publish manuscripts free of any charges. Furthermore, the Society often has initiated programmes to search out and encourage submissions from emerging countries. For example, British Pharmacologic Society officers and members have made several recent trips to China to promote the Journals, and *BJP* agreed to publish the abstracts in Mandarin for a period of time. Other countries will be similarly encouraged to submit their work. Because the scientific quality of manuscripts from these emerging countries is much more variable than say manuscripts from North America or Europe, this puts an extra workload on the Editorial Board and the peer review system, but it is work that the Society views as an integral part of its mission. A last example of *BJP*'s efforts to be the 'international journal of pharmacology' is that *BJP* offers one of the most extensive manuscript editing services, and again, it is free of charge. While manuscripts must obviously be of sufficient quality in grammar and spelling to be accurately reviewed and understood, *BJP* will word edit all accepted manuscripts to not only polish the final grammar, but to ensure maximum impact by suggesting appropriate titles and abstract content.

Brief summary of the content

Our instructions to authors included that the word count of the reviews be a rather short 4000 to 6000 words and no more than five figures. Authors were asked to concentrate on recent developments in the field as opposed to writing a comprehensive review. Authors were also encouraged to include areas of controversy, or emerging hypotheses in the field. Judging by the comments of the referees and editors who handled the reviews, many of the authors achieved these goals in their manuscripts.

There are nine articles focused on asthma and chronic obstructive pulmonary disease (COPD). Beta$_2$-adrenoceptor agonists have been used for the treatment of asthma for well over 40 years so one might predictably ask what is new. The development of longer acting bronchodilator drugs is new and the pharmacology and rationale for the use of these drugs in respiratory disease is discussed (Cazzola *et al.*, 2011). This is followed by an article from Bond and colleagues suggesting that recent discoveries in G protein-coupled receptor theory, may explain some of the controversies surrounding the use of long-acting β_2-adrenoceptor agonists in respiratory disease (Walker *et al.*, 2011). Whilst glucocorticosteroids have been used for decades in the treatment of asthma, new insights into their underlying mechanism of action could potentially lead to the development of novel anti-inflammatory drugs and also provide an explanation for their relative resistance in COPD and severe asthma (Barnes, 2011). Anti-cholinergic drugs are the mainstay treatment for COPD and newer longer acting antagonists are being developed in order to improve compliance and minimize side effects (Moulton and Fryer, 2011). In 2010, a new drug class entered the market for the once a day treatment of severe COPD. Roflumilast is a phosphodiesterase (PDE) 4 inhibitor and the pharmacology of this drug is summarized (Rabe, 2011). The final four reviews in this section focus on subjects which could be exploited to facilitate the discovery of future therapeutic agents for the treatment of these respiratory diseases. There is a huge body of evidence supporting a role of the airway smooth muscle in driving many of the pathophysiological changes observed in asthma and therefore could be seen as targets for therapy (Damera and Panettieri, 2011). The role of T lymphocytes in asthma has received considerable attention over the past two decades with the availability of transgenic murine models, and consequently, our understanding of the complex cytokine network operating in asthma has offered several potential targets (Hansbro *et al.*, 2011). The possibility that a greater understanding of the genetics of asthma and COPD might offer researchers new insights in understanding disease process and/or development of novel therapeutic strategies and of the challenges specific to this approach is the subject of the penultimate review in this section (Obeidat and Hall, 2011). Finally, most therapeutic strategies for COPD focus on the suppression of inflammation and prevention of emphysema, but is there a possibility to regenerate alveoli in a diseased lung? This hypothesis is reviewed by Hind and Maden (2011) and challenges many preconceptions concerning regenerative medicine in the lung. We have also recruited authors to give a contemporary view of other diseases specific to the respiratory tract. Chronic cough is a clinical unmet need that is characterized by numerous phenotypes although there is a paucity of agents which directly targets this condition, although potential targets are highlighted (Dicpinigaitis, 2011). Pulmonary hypertension (Baliga *et al.*, 2011) and pulmonary fibrosis (Datta *et al.*, 2011) are conditions for which there are relatively limited treatment options that delay disease progression and poor prognosis. However, there is an increased understanding of the underlying pathophysiology and these reviews discuss the merits of various targets using a pharmacological approach. Cystic fibrosis is a debilitating disease that might be cured by gene therapy. However, transfection of target airway cells proves difficult, but new approaches that target the cystic fibrosis transmembrane conductance regulator (CFTR) ion channel or recruit other chloride channels offers a tantalizing alternative to gene therapy for the treatment of this condition (Cuthbert, 2011). Finally, we have invited two review articles which focus on the issues facing the pharmaceutical industry in the development of new antibiotics. One review critically evaluates the current issues that we are facing concerning the reasons for the lack of new antibiotics (Coates *et al.*, 2011) and the other review highlights strategies that could be adopted to promote innate defence in the lung to prevent infection (Evans *et al.*, 2011). We acknowledge that not all diseases are covered (e.g. lung cancer) and for this please accept our apology, but we hope this themed issue will provide the impetus for others to submit ideas for other themed respiratory issues in the future.

Concluding remarks

We hope you will enjoy reading these informative reviews. We also hope that if your research uses pharmacological tools

and/or is aimed at understanding the mechanism of action of drugs, you will consider submitting your work to *BJP*.

Acknowledgements

We would like to thank some of the people who made this special issue possible. Of course, we will start with all of the authors who volunteered their time and contributed these informative reviews. We would also like to thank the Reviews Editor, Mike Curtis, and his excellent team of dedicated editors that handle reviews submitted to *BJP*. Finally, we would like to thank the staff at Wiley-Blackwell that handles *BJP*. In particular, Katie Howard, who helped keep everyone on schedule and provided some of the research into the facts mentioned about the Journal.

Conflict of interest

None.

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