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Themed Issue: *Chemistry and Biology of Antioxidants*

As the readership will be aware, the concept of themed issues in the *Journal of Pharmacy and Pharmacology* was successfully introduced in 2005. In these, substantial space within a single issue of the JPP is allocated to the publication of a series of invited, peer reviewed original papers within a common research theme. The objectives of these themed issues are to ensure that the content is both topical and that those papers selected are of the highest research quality, being peer reviewed in accordance with journal policy. To date the Journal has published three themed issues, namely *Drugs from Neotropical Origin, Challenges and Advances in Vaccine Delivery: Unlocking the Pharmaceutical Conundrum and Applications of Novel Spectroscopic Techniques to Pharmaceutical Systems* in the *Journal of Pharmacy and Pharmacology*. These issues have been enthusiastically received by the scientific community and have been extremely successful. Therefore, it is our great pleasure to present the fourth themed issue, "*Chemistry and Biology of Antioxidants*." We believe that the papers comprising this issue serve to highlight the scientific scope and quality of the JPP.

Oxidative stress is involved in the pathogenesis of several diseases such as atherosclerosis, stroke, chronic inflammatory conditions and neurodegenerative disorders. Thus, antioxidant drugs could have beneficial effects in these conditions but their development is a difficult task for several reasons. Firstly, the *in vitro* activity must be evaluated using different assays and the results do not always correlate with the *in vivo* activity. Secondly, the pharmacokinetics of each active substance should be carefully studied because most antioxidant molecules have a complex metabolism or do not cross the blood-brain barrier (essential feature for the treatment of neurodegenerative disorders) and, finally, the dose of the antioxidant drug and the diet of the patients should be carefully evaluated to prevent prooxidant effects. Therefore, to develop new antioxidant compounds/strategies requires close collaborations between organic chemists, biologists, physiologists and pharmacologists. This collaboration is witnessed in the papers selected for this themed issue.

The papers presented in this themed issue are selected proceedings of two different workshops held in Delhi in January 2006 and in Rome in July 2007 on "Chemistry and Biology of Antioxidants" with the aim of bringing together experts working on antioxidants in different fields to strengthen the existing collaborations among them and to create new ones.

Once again the JPP will ensure that the papers published will be disseminated to the key research groups who are involved in this field of research. It is hoped that this will both publicize the research of those groups who have contributed to this themed issue and additionally consolidate the profile of the JPP in the field. As mentioned previously, the provision of this themed issue has raised many logistical challenges and accordingly, there are many people whom we would like to thank for their tireless efforts on behalf of the journal. Firstly we must thank Mrs. Grainne Caffrey at the JPP editorial office in Belfast and the staff at Pharmaceutical Press for ensuring that the papers were carefully processed and published to their deserved high quality. In addition, the support of the Pharmaceutical Press, in particular Mr. Paul Weller, for the concept of the themed issue has been invaluable. We wish to thank the Italian Ministry for University and Research Finally for the financial support of the conferences. Finally, we wish to sincerely thank the authors and referees who have contributed to this special issue.

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