

## Scientific Writing and Publishing

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Knowing how to prepare, write and publish high-quality research papers can be challenging for scientists at all stages of their career. This manual guides readers through successfully framing and presenting research findings, as well as the processes involved in publishing in learned journals. It draws on the author's wealth of practical experience, from working in academic research for over 40 years and teaching scientific writing in over 20 countries, to gaining insights as a journal editor. Well-written and logical, it provides clear step-by-step instructions to enable readers to become more effective at writing articles, and navigating difficulties related to journal submission, the review process, editing and publication. It comprehensively covers themes such as publication ethics, along with current topics including Open Access publishing and preprint servers. This is a useful, user-friendly guide for graduate students, early career scientists and more experienced researchers, particularly in the life and medical sciences.

**Denys N. Wheatley** is a retired academic who has spent over 50 years researching the cellular and molecular basis of cancer. He has published more than 300 papers in learned journals, and more than 100 editorials, commentaries and essays, often on issues involved in scientific writing, editing and publishing. This manual is his seventh book. He has sat on many editorial boards.

His first involvement with the publishing of learned articles came through *Biological Abstracts* in the 1960s, before computers were on the scene. In the mid 1990s, Denys became editor-in-chief of *Cell Biology International (CBI)*, until retiring in 2016. In the late 1990s, he was heavily involved in moving towards electronic (online) publishing. After forging a strong link with BioMed Central in London, working as an independent editor, Denys founded *Cancer Cell International* (2002) and *Theoretical Biology and Medical Modelling* (2006). In 2005, he was asked to take over editorship of *Oncology News*.

Shortly after taking over *CBI*, Denys set up BioMedES UK ([www.biomedes.biz](http://www.biomedes.biz)) because a 'level playing field' was needed to give non-native English-speaking authors a better chance of getting their papers accepted by ensuring that they were presented in the best possible idiomatic English within the correct scientific context. The manual addresses all that this entails, providing information and training that universities and other organizations fail to deliver. Having taught courses in ~20 countries, he knows why this manual is important, not just in the writing of first-class papers, but also in the complex processes on the publishing side that authors should know in much greater depth.

# Scientific Writing and Publishing

A Comprehensive Manual for Authors

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## Acknowledgements

After spending many years editing scientific and medical papers, having founded three journals, and developed a biomedical editing company (BioMedES – [www.biomedes.biz](http://www.biomedes.biz)), I have now spent 3 years or more putting together a manual on the subject of writing and publishing a scientific paper, in particular the primary research paper. Most novices and young authors nowadays seem to have to acquire the considerable skills involved by osmosis, and there is no question that these topics are seldom touched upon in graduate or early postgraduate programmes. This negligence in training of researchers is unforgivable, and is the reason why this manual has been written. It has not been hastily put together, but written, rewritten and honed many times to be as comprehensive as possible without being excessively tedious in its detail. The chapters present a logical sequence as to the way in which a scientific paper is constructed, submitted and published. It is equally surprising that so many new researchers have little idea as to what happens during the publishing process, knowledge of which can always smooth the path of a paper towards acceptance. I hope readers will forgive me for using the same epigraph for almost every chapter, which states why learning properly how to write and publish papers is so important; this cannot be overemphasized. Indeed the career and status of almost all of us depend on our ability to communicate effectively and efficiently. Science is all about communication. It is an art to write a paper, but in science accuracy and integrity in communication are paramount. Training must be followed by practice, more practice and yet more practice.

My task has been aided by many colleagues, but first and foremost I wish to acknowledge the help at all stages of my assistant, Mrs Angela Panther. I want to thank Claire Hamilton and Shona Owen, who recently joined me at BioMedES, in getting the manual into excellent shape ready for publication. I thank Drs Paul Agutter and Mark Henderson for their very sound advice on, and insight into, many matters. The emergence of online publishing around the turn of the millennium meant that I had to seek assistance from other colleagues, who at that time were much more

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computer literate. This was a time of almost complete change in what, in practical terms, publishing a paper was going to be like henceforth. I particularly wish to thank Peter Newmark (director of BioMed Central at its inception) and later Delphine Grynszpan, also at BMC. Nevertheless, how one *writes and composes* a learned article remains the same as before digital publishing came in. My thanks also go to Kurt Albertine, Joan Marsh, Cynthia Jensen, Ed Hull and many others who have at times pointed me in the right direction. Finally, I want to thank my partner, Jean Fletcher, for her unswerving support and tolerance throughout.