Preface

Cancer cell culture remains as important today as it was when the first edition of *Cancer Cell Culture: Methods and Protocols* was published 6 years ago. However, the emphasis of research using cell culture methods is shifting towards the use of primary cells rather than the generation of new cell lines, and the chapters in this edition reflect this.

As before, the basic concepts of cancer cell biology and culture are covered in the first few chapters, with an emphasis on safe working practice for both cells and laboratory researchers. These chapters contain the information critical to success – only by good practice and quality control will the results of cancer cell culture improve.

I am grateful to several authors from the last edition for updating some of their chapters to reflect improvements, particularly the rapid improvement in real-time PCR technology. In a change to the last edition, which is still available, I have included a series of chapters covering a series of different assay methods which allow the action of drugs and toxins on cells to be measured. Many of these can be used with primary cell preparations. There is a chapter reviewing high throughput screening of natural products, and a practical guide to the assessment of drug interactions. It is now possible to introduce genetic defects into normal cells with greater precision than ever before, and this is already delivering a completely new set of cell lines to researchers, including those in the pharmaceutical industry and academic laboratories.

In organising a book like this, one quickly realises the breadth and depth of research activity that depend on cell lines. Inevitably, some potential authors were too busy to contribute, and there were many I probably should have asked but did not as the list of chapters filled up all too quickly. There is no attempt here to claim to be comprehensive, but I hope that the new edition of this valuable book will prove useful to many laboratories. I am immensely grateful to those that found time to contribute and to Professor John Walker for his guidance during the difficult phases of this year-long process. My wife, Brigit had to put up with the amount of time I spent in my study, and did so very graciously – I am indebted to her again and I am very grateful for her support.

*Portsmouth, UK*  
Ian A. Cree
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