

Preface

Almost 20 years after the original publication of a landmark *Methods in Cell Biology* series volume (edited by Conly Rieder) exclusively dedicated to Mitosis and Meiosis, we have the privilege and great responsibility to coedit two completely new volumes of *Methods in Cell Biology* on Mitosis and Meiosis, Parts A and B.

We thought the time would be right for a new series of *Methods in Cell Biology* on Mitosis and Meiosis (note that by 1999 there was no CRISPR-Cas9, or even widespread RNAi to look at gene function, and *Saccharomyces cerevisiae* and *Caenorhabditis elegans* were the only eukaryotic genomes sequenced!), if we could find the right people to cover all relevant methodology that has led to major discoveries in Mitosis/Meiosis over the last 20 years.

In the original 1999 volume of these series on Mitosis and Meiosis, one can find contributions from pioneers in these fields, including Bruce Alberts, Ted Salmon, Bruce Nicklas, Tim Mitchison, Andrew Murray, and Kip Sluder, among others, that set the highest standards in Mitosis and Meiosis research, while leaving an important legacy to the new generation of scientists that have nowadays emerged as new leaders in these fields. We were very pleased that many distinguished colleagues have readily agreed to contribute a chapter to be part of these exciting new series. We are grateful for their generosity and encouragement, and hope they feel proud of the final outcome of these volumes that we are now delivering to the present and future generations of Mitosis/Meiosis researchers. Their contributions are the best way to honor all those previous researchers that trained the present generation and pay tribute to their fundamental contributions to the field. We also wanted to make sure that, in a genomics and nanotechnology era, we do not lose the unique expertise and technical skills, many of which still rely on steady hands and ingenious minds, that were pioneered by many of the founders of the field, such as Franz Schrader, Andrew Bajer, and Shinya Inoue. A special mention is due to our colleagues Paul Maddox and Alexey Khodjakov, who had originally agreed to contribute a chapter to these series, but were unable to complete their contributions by reasons of force majeure. Finally, a special thanks is due to Ms. Katie Chan for her great and very professional help in coordinating the assembly of the 40 amazing chapters that are part of these two volumes and for making sure that all authors understood the meaning of "deadline." We look forward to what the next 20 years will bring to Mitosis and Meiosis research!

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