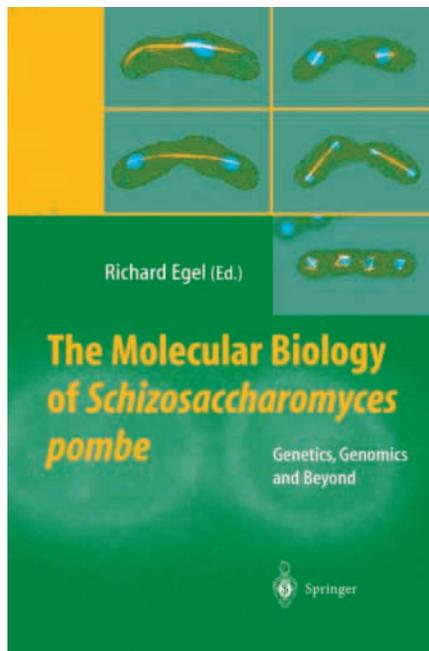


**The Molecular Biology of  
*Schizosaccharomyces  
pombe*: a collection of  
short stories of interest  
to beginners and experts  
alike**



**The Molecular Biology of  
*Schizosaccharomyces  
pombe*: Genetics,  
Genomics and Beyond**

Edited by Richard Egel

Springer Verlag (2004) 450 pages  
ISBN: 3-540-00693-1  
price £154/ 199.95/\$225 (hardcover)

*Schizosaccharomyces pombe*, also known as fission yeast, has long been a favourite model system of numerous labs. It has served as a useful tool to establish basic mechanisms and principles in many aspects of biology, such as the cell cycle and its associated checkpoints, cell morphogenesis, epigenetic regulation and chromatin structure. The insights provided by studies of this simple model organism have also aided the analysis of similar processes in more complex organisms, perhaps most notably in the demonstration that the key cell cycle regulator Cdc2 has a functional

counterpart in human cells, which followed the earlier demonstration of functional conservation in the distantly related budding yeast *Saccharomyces cerevisiae*.

Fifteen years have passed since the publication of *Molecular Biology of the Fission Yeast*, edited by Anwar Nasim, Paul Young and Byron Johnson. This book covered the state of the art in fission yeast biology, including topics such as growth and metabolism, cell cycle, mating and meiosis, and basic genetics. There was also a chapter describing the basic principles and vectors for cloning of genes by complementation of *Saccharomyces pombe* mutants that had been described for the first time only seven years before.

Much has happened in the intervening time: many new aspects of fission-yeast biology have been studied and in 2002 *S. pombe* became the sixth eukaryote to have its genome sequenced. The fission yeast community has expanded hugely as members of the few 'founder laboratories' have set up their own groups and spawned their own scientific offspring. The 'omics' era has also encouraged people in other fields to study their favourite gene or biological problem in *S. pombe*. Although various user's guides to standard techniques for working with fission yeast have been published in the interim, an update of the Nasim et al. book to provide an overview of the biology of *S. pombe* was long overdue.

This Herculean task was taken on by Richard Egel, who also organises the excellent EMBO practical course on fission yeast in Copenhagen. The 12 chapters of the original volume have expanded to 29, reflecting both the diversity of fields studied and the increase in our knowledge; in 1989 it was possible for Peter Fantès to write a magnificent summary of all that was known about the cell cycle of fission yeast in a single chapter, whereas more than 20% of the chapters in this book cover aspects related to basic cell cycle control mechanisms and checkpoints.

The individual chapters are all written by leaders in the field and they present brief overviews, placed in context, with cross-

referencing where appropriate. The chapters are all succinct, presumably so that everything could be covered in a single volume. I enjoyed reading this book and have found it to be useful as a summary and key into the literature in fields outside my own. A problem frequently encountered in assembling this kind of book is that not all the chapters are up to date by the time it is published. The previous volume by Nasim et al. required addendums updating or correcting information for many chapters in the faster moving fields. Richard Egel and the publishers have done a remarkable job of getting the multitude of authors to produce on time, so that the book is not only comprehensive in its coverage, but is also up-to-date. In his introductory remarks, Richard Egel states: "Many specialists not only glance at the sections closest to their expertise, but also widen their perspectives to adjacent topics and beyond." This book will serve as an excellent reference not only for the established fission yeast community, but also those visiting the fission yeast world from other systems. He is to be congratulated for this achievement and the production of an excellent introduction to fission-yeast biology. Hopefully, we will not have to wait 15 years for the sequel.

**Viesturs Simanis**

Cell Cycle Control Laboratory, Swiss  
Institute for Experimental Cancer  
Research (ISREC), Epalinges,  
Switzerland

*Journal of Cell Science* 117, 3712  
Published by The Company of Biologists 2004  
doi:10.1242/jcs.01319