

Preface

Fungal cellular and molecular biology has entered an unprecedented phase of rapid growth and change. The availability of complete genome sequences, coupled with the advent of new genetic and molecular tools, has made possible analyses that were deemed unthinkable just a few years ago. In the current environment, it is advantageous to have access to books that synthesize and rationalize the new information gleaned from genomics with the accumulated literature from years of research in the field.

Our goal was to organize a book that will be a major work on the filamentous fungi, serving as the first point of reference for this important group of organisms. We envisioned producing a handbook for professional researchers and graduate students in the field, as well as a textbook for graduate and undergraduate courses. Although model organisms are covered in detail, we strove to represent the diversity of the fungal kingdom. The chapters in this book cover a variety of dimorphic and "obligate" filamentous fungal species, illustrating lifestyles adapted to diverse ecological niches. Chapters also provide comparisons to work with the yeasts *Saccharomyces cerevisiae* and *Schizosaccharomyces pombe*, as appropriate. Every effort has been made to incorporate new data from genomics-based approaches and to provide well-grounded evaluation of the literature.

We are indebted to the many authors who made this book possible. All took time out from already overextended schedules to write chapters that are comprehensive and capture the essence of their field. In particular, we would like to acknowledge the efforts of Dr. Rowland Davis, Professor Emeritus at UC Irvine. Rowland suffered a

severe stroke, yet emerged from a coma and extended time on a ventilator (during which time he could not speak) to ask about his reference list and permission to republish forms for figures! Rowland, you are an inspiration to the rest of us.

We recognize Dr. Michelle Momany for her efforts during the early stages of organizing the book. She was instrumental in developing the original outline and contacting prospective authors. New administrative duties as department head prohibited her from continuing with the project.

We thank ASM Press for having the foresight to solicit a book on filamentous fungi. We are indebted to Senior Editor Gregory Payne for first discussing the idea for this book with one of us (Borkovich) and then for his patience and advice as we solicited and read chapters and worked with the authors to create the best possible book. We thank Senior Production Editor Ellie Tupper, whose attention to detail and editorial standards are unsurpassed and are reflected in the final product.

Lastly, we would like to acknowledge those scientists (and mentors) who have passed away in the last few years and whose work laid the foundation for the information described in many of the chapters of this book. Among these are John Fincham, Norman Giles, Edward Garber, David Perkins, Dorothy Newmeyer, David Stadler, and Robert Metzenberg. Their enthusiasm for science and the study of filamentous fungi lives on in their scientific "descendants."

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