
Preface

The study of the mechanisms of animal cell division is a mature field. Division has long been considered a central event in the life of cells and it has, as a consequence, stimulated much curiosity and thought, many observations, and numerous ingenious experiments and measurements. The literature of the field is rich and reliable, but it does not appear to have developed in a markedly systematic or orderly fashion; therefore, persons seeking a broad acquaintance with the available information can easily miss important work or ideas. The purpose of the book is to lead the reader into the literature. It was not possible to do full justice to the work of all the investigators who have made significant contributions.

Although the time period during which cytokinesis has been actively investigated is by modern standards lengthy, the number of persons actively contributing new information and ideas at any one time has been small, and the rate of progress has been slow. Whether they proved to be right or wrong, the work and thoughts of the older workers are important, and the gradual emergence of the personalities of these workers from the yellowing pages of their writings has been an enjoyable aspect of this protracted writing project. My emphasis on the importance of published literature may arise in some part from my entrance into the field without formal training or guidance. I was enthralled by the experiments of Yatsu, which demonstrated that cells are far more durable than I had imagined and that simple experiments can reveal fundamentally important facts about cytokinesis. Since then,

I have tried to follow a similar pattern of investigation involving experiments, many of which, I now realize, would have been possible with the equipment available by the early 1920s.

It is still possible to find out new important facts about cytokinesis by physical experimentation on living animal cells, and I hope that some of the readers of this book will be moved to adopt this method of analysis.

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