expected of working cell biologists. For example, how long are the DNA molecules contained in the nucleus of a single human cell? (Answer: roughly 2 m.) Such computations are never mathematically challenging, but always biologically illuminating.

*MBoC* is a prime example of what a good textbook in the biological sciences should be: comprehensive, vivid and up-to-date. However, it is Wilson and Hunt's companion volume that makes *MBoC* truly special. Whether you are looking for interesting class problems or just wish to test your own understanding of cell biology, *The Problems Approach* is the closest you can get to experiencing the excitement of research without exchanging the safety of your armchair for the vagaries of the laboratory.

### Details

**Molecular Biology of the Cell**
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**Molecular Biology of the Cell: A Problems Approach**
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# The Third Man of the Double Helix

## By Maurice Wilkins

**Reviewed by Friedlinde Krotscheck, Internationale Gesamthochschule Heidelberg, Germany**

In this autobiographical book, Maurice Wilkins presents the chronological story of the discovery of DNA structure in 1953. As *The Third Man of the Double Helix*, Wilkins is well placed to describe the complex scientific background and people involved in the breakthrough that earned him and fellow scientists Francis Crick and James Watson the 1962 Nobel Prize in Physiology or Medicine.

Since it is an autobiography, Wilkins puts himself in the centre by stressing his own point of view. Disturbed by concerns that Rosalind Franklin was not given the credit she deserved for her part in the discovery, he states in the preface that "this book is in some way my attempt to respond to these questions, and to tell my side of the story." And that is precisely what Wilkins does, presenting his viewpoint while including his own shortcomings and those of others who worked for decades on the question of how the cell copies genetic information.

The title suggests a rather exciting detective story, but the book starts off at a much slower pace by leading the reader through the author's family tree. It takes some patience not to skip this first chapter completely. By chapter two, Wilkins has begun to describe his educational background, painstakingly building up the story to make the reader understand why he worked for some time on the development of the atomic bomb in Berkeley, California, in the early 1940s. Finally, he describes the research team under Professor Randall at King's College, London, also called 'Randall's Circus'. From then on, *The Third Man* evolves and keeps the reader in suspense. The book ends with the very simple conclusion that if Wilkins and Rosalind Franklin had been a more compatible team, they would have found the solution to the DNA structure much earlier.

This historic event is an excellent example of the necessity of teamwork across science subjects, interdisciplinary exchanges and group co-operation. With today's competition for research funding, it is even more difficult to work selflessly for the common good. Wilkins' message is to focus first on the idealistic advancement of science and to put one's own fame on the backburner. Students need to learn to work co-operatively in groups, to gain knowledge from each other and to accept other opinions. Creative criticism leads to discussions and these might lead to solutions.

*The Third Man of the Double Helix* would appeal to teachers and high-school students of biology. However, to get the full picture of this landmark discovery, one should also read Jim Watson's book *The Discovery of the Double Helix* and Brenda Maddox's *Rosalind Franklin*.

The historic relevance of all three books is especially important for younger teaching faculty who were not contemporary witnesses to this period of scientific progress.

### Details

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