

Preface

In molecular biology, molecular chaperones are proteins that assist the conformational folding or unfolding of large proteins or macromolecular protein complexes. There are a number of classes of molecular chaperones, all of which function to assist large proteins in proper protein folding during or after synthesis, and after partial denaturation. Chaperones are also involved in the translocation of proteins for proteolysis. The first molecular chaperones discovered were a type of assembly chaperones which assist in the assembly of nucleosomes from folded histones and DNA. One major function of molecular chaperones is to prevent the aggregation of misfolded proteins, thus many chaperone proteins are classified as heat shock proteins, as the tendency for protein aggregation is increased by heat stress.¹

In the present book, ten typical literatures about molecular chaperones published on international authoritative journals were selected to introduce the worldwide newest progress, which contains reviews or original researches on molecular chaperones. We hope this book can demonstrate advances in molecular chaperones as well as give references to the researchers, students and other related people.

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¹ [https://en.wikipedia.org/wiki/Chaperone_\(protein\)](https://en.wikipedia.org/wiki/Chaperone_(protein))