

Preface

In early 2007, Paul Deards from Wiley approached me and asked whether I would like to edit a book on the topic of light-responsive nucleic acids. Upon this impulse we started a fruitful discussion on that topic. An initial survey of books that cover nucleic acids in general, and on light-responsive nucleic acids in particular, resulted in the finding that almost no comprehensive compendium starting with the synthesis of nucleic acids and their derivatives and also covering their biological applications was available at that time. Therefore, we decided to withdraw the initial idea of putting together a book on light-responsive nucleic acids only, and instead we set out to edit a more general book on the topic of *The Chemical Biology of Nucleic Acids*. The result of this effort finally led to what is compiled within the present book.

Fortunately, many outstanding scientists within their respective scientific fields agreed to contribute to the book. Without their efforts this compilation would not have come to life. It is amazing to learn which central role RNA, DNA and derivatives thereof play in Nature, apart from the sole storage and transmission of genetic information, and it is even more remarkable to gain knowledge on the versatile application of artificial, synthetic nucleic acids to investigate biological phenomena. Being a part within this scientific area is exciting and I am curious to learn what comes next. I am very proud that Fritz Eckstein could be won over to write the Foreword to this book. He definitely is the right and most competent person to do so – thank you very much. Of course, the book cannot cover every aspect of the complex and diverse field of nucleic acids. I apologize if we have missed any subjects that others might consider invaluable. Owing to the inevitable space constraints, we definitely had to make compromises that owing to their inherent nature will not satisfy everyone's opinions completely. Finally, I would like to thank all the authors again for their willingness to make *The Chemical Biology of Nucleic Acids* an outstanding contribution – it will certainly become an important reference in the field. I am also grateful to Paul Deards who initiated the process leading to this book, and Richard Davis, Gemma Valler and Rebecca 'Becki' Ralf at Wiley for their helpful support and encouragement during the making of this book.

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