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Molecular Biology and Genomics
(The Experimenter Series)

实验者系列：

分子生物学与基因组学

Cornel Muelhardt

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The Experimenter Series

实验者系列

Molecular Biology and Genomics

分子生物学与基因组学

Cornel Muelhardt

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前　言

真是令人难以置信，在短短的五年内我们就准备要发行本书的第四版了。在第四版中，我们再次扩充了内容；然而即使专题的覆盖面一直在增加，本书的主旨仍然保持基本不变。例如，本次将微测序法、焦磷酸测序与 RNA 干扰包括了进来。同时还着手编写了与年轻科研工作者职业生涯规划相关的短篇——毕竟一个人不能仅依靠科研的神圣而生存。另外还循例做了大量小的修订。尽管自发行以来已做了大量的工作，仍留有很大的改进空间。你可以做任何可能之事，但最终都处在一种不确定性的掌控之中！本书难免会有一些印刷错误，希望读者不吝指正。

（刘斌　译）

第一版前言

真的想读一下前言吗?

读过 Hubert Rehms 的《实验者系列:蛋白质生物化学与蛋白质组学》的前言与结束语并细细品味后,再读一下 Siegfried Bars 在"如何在德国做科研:研究员与将成为研究员者之马基雅弗利准则"中的语句。即使新手不倾向于相信这些,然而事实确是如此。换句话说,最成功的研究者,其出众之处在于对包括出版在内的各种场合都能应付自如,广交益友,善于与朋友沟通,而非什么开创性的成就。我们的目标是把从学生成就为教授的时间尽可能地缩短。然而,一旦成为教授,研究工作就交与他人完成,这正如一个成功的军师不是依靠自己的战刀,而是通过向野心勃勃的指挥官出谋划策,取得理论上的胜利。在此身份下,一个人仅仅是间接与科研相联系。如果在读过本书后你没有放弃,那么你可能已经显示了献身于分子生物学研究所需要的"沉着"。换句话说,为了避免被实验室司空见惯又永无休止的挫折折磨得发疯,冷静的头脑是必需的。

"不要气馁……! 其他人即使没有成功也仍在奋力地工作;刚开始时得不到结果很正常。不要放弃! ——要么就去选择另一个更合适的职业。"

(刘斌 译)

致　谢

以前我一直认为，作者在书的开头对朋友、亲属的溢于言表的致谢是作者义务无趣的表现。今天，我终于意识到致谢其实是历经磨练、发自内心的真情流露。感谢 Marc Bedoucha，Igor Bendik，Hans-Georg Breitinger，Dorothee Foernzler，Christophe Grundschober，Andreas Humeny，Frank Kirchhoff，Nina Meier，Nicoletta Milani 和 Ruthild Weber，是他们的贡献促成本书的成功。把最温馨、最特别的感谢送给 Cord-Michael Becker，多年来她一直支持着我。

最后，也感谢 Spektrum Verlag 和本书的策划者 Ulrich Moltmann，他们提出编写这样一本书的设想，我才得以实现这一夙愿；感谢 Jutta Hoffmann，是 Jutta 不时而友好的敦促，使我没有半途而废；感谢致力于本书每一版初稿修订的 Bettina Saglio。如果上帝真的存在的话，那就请保佑他们能与更多严谨的作者合作。

众所周知，没有任何事物是完美无缺的。这本书也是一样，因此我非常乐意接受任何建设性的批评。

（刘斌　译）

Foreword

It is hard to believe that we are now already producing the fourth edition within such a brief time period of only five years. In this edition we have once again increased its dimensions; here, however, the basics have remained more or less unchanged, although the number of "specialties" covered continues to increase. This time, for instance, minisequencing, pyrosequencing, and RNA-interference have been included. In addition, the time has now come to write a short introduction concerning the planning of careers for younger researchers—after all, one does not live from the nobility of research alone. Numerous, minute corrections have had to be performed as well, since nothing is perfect. This book as well, in spite of the enormous amount of work which has already been carried out in its production, nevertheless continues to demonstrate room for improvement. One can do whatever is possible, but entropy always seems to win in the end! However, there are enough typographical errors still to be found here as well and we are therefore thankful for every piece of advice which we might receive!

Foreword to the First Edition

Do you actually want to read a foreword?

Read the preface and concluding comments in Hubert Rehms' "Experimentator: Proteinbiochemie" ("Protein Biochemistry" in the "Experimentator" series from Spektrum Verlag) and, finally, after getting a taste for them, read those statements in Siegfried Bars' "Forschen auf Deutsch: Der Machiavelli für Forscher—und solche, die es werden wollen" ("How to Do Research in German: The Machiavellian Guideline for Researchers—and for Those Who Would Like to Become Such" from Verlag Harri Deutsch). Even if the beginner is not inclined to believe so, the wind actually blows as has been described here. The most successful researcher, namely, is not to be distinguished by any pioneering accomplishments, but rather through his/her clever actions in scenes involving publications and in his/her large number of friends. The goal is to keep the phase as short as possible between one's time as a student and that during which one is authorized to function as a professor. Once one has finally reached this goal, however, the research is then left to the others; in the same way in which a successful military strategist no longer reaches for his/her own saber, but instead only carries out his/her advances theoretically through the actions of ambitious military leaders. At this stage, one merely has an indirect relationship to research. Should you not have given up after completing this reading material, you may possibly demonstrate the necessary composure to dedicate yourself to research in molecular biology. This composure, namely, will prove to be quite essential in order to avoid being driven crazy from the endless series of failures which can be expected in the daily life which is to be experienced in the laboratory.

"Don't let yourself be discouraged [...]! The others are also working themselves to a frazzle without any success; it is quite normal that no results are to be observed in the beginning. Just keep it up!—Or take up a reasonable occupation."

With this in regard ...
Cornel Mülhardt

Acknowledgments

I have always considered the effusive acknowledgments at the beginning of a book by the author directed to friends and relatives to represent the boring performance of one's duties. Today, I am finally aware that it truly is a matter near one's heart to express one's thanks for having survived a difficult phase of life. For their contribution toward the success of this book, I would like to thank Marc Bedoucha, Igor Bendik, Hans-Georg Breitinger, Dorothee Foernzler, Christophe Grundschober, Andreas Humeny, Frank Kirchhoff, Nina Meier, Nicoletta Milani, and Ruthild Weber. My special thanks go to Cord-Michael Becker, who has continuously supported me over the years and earned my warmest thanks.

Finally, there is also Spektrum Verlag and the project planner Ulrich Moltmann, who came up with the idea for such a book and thereby enabled me to fulfill a very old dream, Jutta Hoffmann, without whose occasional, friendly pressure I would certainly have given up before reaching the end, and Bettina Saglio, who must always struggle with my newest versions. If God does exist, may He/She bless them with more punctual authors.

It is known that nothing is so good that it cannot be improved upon. That is especially the case for such a book as this, a reason that would make me very happy to receive any constructive criticism.

目　录

（刘斌　译）

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