



· 导读版 ·

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 Experimental Section)

实验与基因组学

分子生物学与基因组学

Experimental Molecular Biology



The Experimenter Series

实验者系列

Molecular Biology and Genomics

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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 Breitingner, 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 Breitingner, 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

引言	xi
第一版前言	xiii
致谢	xv
1 什么是分子生物学?	1
1.1 分子生物学基础知识:让初学者认识分子世界	2
1.2 分子生物学基本要求	7
1.3 实验室安全	8
2 基本方法介绍	11
2.1 核酸的差异	11
2.2 核酸沉淀浓缩	13
2.2.1 乙醇沉淀法	13
2.2.2 浓缩装置	16
2.2.3 冷冻干燥	17
2.2.4 盐析	17
2.3 核酸纯化	17
2.3.1 酚氯仿抽提纯化法	17
2.3.2 聚乙二醇沉淀法	19
2.3.3 蛋白结合滤膜纯化法	19
2.3.4 阴离子交换柱纯化法	19
2.3.5 玻璃乳纯化法	20
2.3.6 氯化铯密度梯度离心法	21
2.3.7 透析法	22
2.4 核酸浓度测定	22
2.4.1 分光光度计法	22
2.4.2 琼脂糖凝胶电泳法	24
2.4.3 点量化法	24
2.4.4 荧光定量法	25
2.4.5 核酸检测计法	25
2.4.6 酶标志法	25
2.5 DNA 制备方法	26
2.5.1 质粒 DNA 的小量制备	26
2.5.2 质粒 DNA 的大量制备	28

2.5.3	细菌培养基	31
2.5.4	噬菌体 DNA 的制备	31
2.5.5	利用辅助噬菌体制备单链 DNA	35
2.5.6	基因组 DNA 制备	35
3	分子生物学工具	37
3.1	限制性酶	37
3.1.1	命名法	37
3.1.2	活性测定	39
3.1.3	限制性酶切反应	40
3.1.4	限制性酶切难点	41
3.1.5	限制性酶切指南	44
3.2	凝胶	45
3.2.1	琼脂糖凝胶	45
3.2.2	琼脂糖凝胶中的 DNA 片段回收	50
3.2.3	聚丙烯酰胺凝胶	53
3.2.4	聚丙烯酰胺凝胶中的 DNA 片段回收	55
3.2.5	脉冲场凝胶电泳	56
3.2.6	毛细管电泳	56
3.3	印迹法	57
3.3.1	Southern 印迹法	57
3.3.2	Northern 印迹法	60
3.3.3	点印迹法和缝印迹法	62
4	聚合酶链式反应	65
4.1	标准聚合酶链式反应	65
4.2	改进的聚合酶链式反应	74
4.2.1	巢式聚合酶链式反应	76
4.2.2	多重聚合酶链反应	76
4.2.3	长片段聚合酶链反应	77
4.3	聚合酶链式反应的应用	78
4.3.1	反转录聚合酶链式反应	78
4.3.2	cDNA 末端的快速扩增	79
4.3.3	相同产物扩增	80
4.3.4	经典定量聚合酶链式反应	82
4.3.5	实时定量聚合酶链式反应	84
4.3.6	反向聚合酶链式反应	89
4.3.7	Biotin-RAGE 聚合酶链式反应	89
4.3.8	改良引物诱变	90

4.3.9	扩增阻滞突变系统	91
4.3.10	原位聚合酶链式反应	92
4.3.11	循环测序	92
4.3.12	cDNA 合成	93
4.3.13	单细胞聚合酶链式反应	94
5	RNA	95
5.1	RNA 酶灭活	95
5.2	RNA 提取方法	96
5.2.1	一步法	96
5.2.2	乙基苯基聚乙二醇裂解法	97
5.2.3	基本信息	97
5.2.4	RNA 浓度测定	98
5.3	mRNA 分离方法	98
5.3.1	购买 RNA	99
5.4	逆转录;cDNA 合成	99
5.5	体外转录;RNA 合成	100
5.6	RNA 干扰	102
6	克隆 DNA 片段	105
6.1	克隆的基本要素	105
6.1.1	载体	106
6.1.2	DNA 片段	107
6.1.3	补平反应	108
6.1.4	DNA 定量	109
6.1.5	连接	110
6.1.6	克隆 PCR 产物	111
6.1.7	用重组酶体系克隆	113
6.2	选择克隆载体	116
6.2.1	质粒	116
6.2.2	噬菌体	118
6.2.3	柯斯质粒	119
6.2.4	P1 人工染色体及细菌人工染色体	120
6.2.5	酵母人工染色体	121
6.3	选择细菌	122
6.4	制备感受态细胞与转化	122
6.4.1	氯化钙法	123
6.4.2	氯化铷法	124
6.4.3	TSS 法	124

6.4.4	电转	124
6.4.5	效价检测	126
6.5	克隆的相关问题	127
6.6	克隆的保存	128
7	杂交:如何检测到 DNA	131
7.1	制备探针	131
7.1.1	制备标记探针的方法	132
7.2	杂交	136
7.2.1	杂交缓冲液	136
7.2.2	杂交反应体系	137
7.2.3	杂交温度	137
7.2.4	洗涤	138
7.3	标记 DNA 的验证	138
7.3.1	放射自显影技术	138
7.3.2	非放射性检测方法	140
7.4	重组 DNA 库的筛选	143
7.4.1	DNA 库板的制备	143
7.4.2	膜的转移	143
7.4.3	膜的杂交	144
7.4.4	膜的曝光	144
7.4.5	克隆探测	145
7.4.6	今后对库的筛选	146
7.5	双杂交系统	146
8	DNA 分析	151
8.1	测序	151
8.1.1	放射性测序	153
8.1.2	非放射性测序与自动测序单位	154
8.1.3	袖珍型测序	156
8.1.4	焦磷酸测序法	157
8.1.5	测序特性:八聚体	159
8.2	分析 DNA 突变的方法	160
8.2.1	限制性片段长度多态性	160
8.2.2	单链构象多态性	161
8.2.3	变性梯度凝胶电泳	162
8.2.4	时相温度梯度电泳	164
8.2.5	异源双链核酸分析	165
8.2.6	扩增阻滞突变系统	165

8.2.7	错配酶切	165
8.2.8	截断蛋白检测	167
9	DNA 序列功能的研究	169
9.1	组织内转录研究	170
9.1.1	核糖核酸酶保护实验	170
9.1.2	实时定量 PCR 实验	170
9.1.3	原位杂交	171
9.1.4	染色体荧光原位杂交	173
9.1.5	原位聚合酶链式反应	175
9.1.6	微阵列	175
9.2	突变	180
9.3	体外翻译	189
9.4	表达系统	190
9.4.1	细菌表达系统	191
9.4.2	杆状病毒表达系统	191
9.4.3	其他表达系统	193
9.4.4	哺乳动物细胞中的异源表达系统	194
9.4.5	转染方法	195
9.4.6	多基因共转染	202
9.4.7	瞬时和稳定转染	203
9.4.8	报告基因	204
9.5	转基因小鼠	209
9.5.1	转基因方法	210
9.6	转基因表达调控	215
9.6.1	四环素基因表达调控系统	215
9.6.2	蜕皮素基因表达调控系统	216
9.7	基因治疗	217
9.8	基因组学	219
10	计算机应用	223
10.1	重要事项	223
10.2	实践中存在的问题	225
11	职业生涯规划建议: 针对青年研究者的马基雅维利短期课程	227
12	结束语	233
附录 1		235

图标.....	235
标准溶液和细菌培养基.....	235
溶液	235
细菌培养基	236
术语表.....	237
附录 2	241
供应商.....	241
推荐文献.....	244
休闲读物.....	245
索引.....	247

(刘斌 译)

Contents

Foreword	xi
Foreword to the First Edition	xiii
Acknowledgments	xv
1 What Is Molecular Biology?	1
1.1 The Substrate of Molecular Biology: The Molecular World for Beginners	2
1.2 What Is Required for This Work?	7
1.3 Safety in the Laboratory	8
2 Fundamental Methods	11
2.1 Differences in Nucleic Acids	11
2.2 Precipitation and Concentration of Nucleic Acids	13
2.2.1 Alcohol Precipitation	13
2.2.2 Concentrators	16
2.2.3 Savant Speed Vac	17
2.2.4 Salting Out	17
2.3 Purification of Nucleic Acids	17
2.3.1 Phenol-Chloroform Extraction	17
2.3.2 Precipitation Using Polyethylene Glycol	19
2.3.3 Protein-Binding Filter Membranes	19
2.3.4 Anion-Exchange Columns	19
2.3.5 Glass Milk	20
2.3.6 Cesium Chloride Density Gradient	21
2.3.7 Dialysis	22
2.4 Determining the Concentration of Nucleic Acid Solutions	22
2.4.1 Optical Density Measurements with the Aid of Absorption Spectrometry	22
2.4.2 Determination of Concentration by Means of Agarose Gels	24
2.4.3 Dot Quantification	24
2.4.4 Fluorometric Determination	25
2.4.5 Nucleic Acid Dipsticks	25
2.4.6 Enzymatic Evidence	25
2.5 Methods of DNA Preparation	26
2.5.1 Preparation of Plasmid DNA on a Small Scale	26
2.5.2 Preparation of Plasmid DNA on a Large Scale	28