Contents

1 Live Attenuated Viral Vaccines ............................................. 1
   Mark S. Galinski, Kuldip Sra, John I. Haynes II
   and Jennifer Naspinski

2 Inactivated Viral Vaccines .................................................. 45
   Barbara Sanders, Martin Koldijk and Hanneke Schuitemaker

3 Recombinant Virus-like Particle Protein Vaccines ..................... 81
   Robert D. Sitrin, Qinjian Zhao, Clinton S. Potter,
   Bridget Carragher and Michael W. Washabaugh

4 Analysis of Influenza Vaccines .......................................... 113
   Pierre-Alain Moisset, Jeffrey Pederson and Nathalie Landry

5 Live-Attenuated and Inactivated Whole-Cell Bacterial
   Vaccines ............................................................................ 139
   Anita H.J. van den Biggelaar and Jan T. Poolman

6 Analytical Control Strategy of Bacterial Subunit Vaccines .......... 187
   Shwu-Maan Lee, Vincent Turula, Bradford Powell,
   Mikkel Nissum, Mariagrazia Pizza, Claudia Magagnoli
   and Niranjan M. Kumar

7 Bacterial Polysaccharide Vaccines: Analytical Perspectives ..... 271
   Earl Zablackis, Philippe Talaga and Sudhham Singh

8 Glycoconjugate Vaccines ..................................................... 301
   Neil Ravenscroft, Paolo Costantino, Philippe Talaga,
   Roberto Rodriguez and William Egan

Bibliografische Informationen
http://d-nb.info/1058023675
9 Vaccines in Research and Development: New Production Platforms and New Biomolecular Entities for New Needs 383
John P. Hennessey Jr. and Niranjan Y. Sardesai

10 Role of Analytics in Viral Safety 397
Rebecca L. Sheets and Paul A. Duncan

11 Deep Sequencing Applications for Vaccine Development and Safety 445
David Onions, Colette Côté, Brad Love and John Kolman

12 Quality-by-Design: As Related to Analytical Concepts, Control and Qualification 479
Beth Junker, Earl Zablackis, Thorsten Verch, Tim Schofield and Pierre Douette

13 Vaccine Potency Assays 521
Todd Ranheim, Ned Mozier and William Egan

14 Establishing a Shelf Life and Setting Lot-Release Specifications 543
William Egan and Timothy Schofield

15 Vaccine Reference Standards 563
Brian K. Nunnally

16 Lot Release of Vaccines by Regulatory Authorities and Harmonization of Testing Requirements 573
Rajesh K. Gupta, Chander K. Gupta and Laurent Mallet

17 Dendritic Cell Targeting Vaccines 597
Yoonkyung Do and Bradford Powell

Index 661