

Manufacturing of Pharmaceutical Proteins: From Technology to Economy. By Stefan Behme. Wiley: Weinheim. 2008. xiv + 390 pages. €89. ISBN 978-3-527-32444-6

It is unusual to find a book of such complexity and diversity written by a single author. Clearly Stefan Behme has been involved in all aspects of manufacture of pharmaceutical proteins whilst at Bayer and Bayer-Schering, and this experience shows in the depth of understanding of each topic, and the inter-relationship between the various sections on technology which includes chapters on the manufacturing process and on analytics, pharmacy, QA, pharmaceutical law, production facilities, and economy.

Some of the chapters, e.g. on QA and Pharma Law/Regulatory Authorities, could apply to any type of drug substance or product, and more comprehensive discussion of these topics is available elsewhere. Nevertheless their inclusion in the book provides a comprehensive picture by the author of all aspects of manufacturing of pharmaceutical proteins.

Overall this is an engineering approach to manufacturing. I was surprised, given the importance of process development to the manufacture of biopharmaceuticals, that there was not a chapter covering the key issues in development and scale-up.

The author covers a vast amount of material in the almost 400 pages, and this is valuable, since there are few books on pharmaceutical manufacture. His industrial practice and understanding of the multidisciplinary nature of modern manufacture shines through each chapter. As a result, a highly readable and comprehensive book has been produced.

Highly recommended to those needing an appreciation of industrial manufacturing of biopharmaceuticals.

Trevor Laird
Editor

10.1021/op200012c

Published: February 08, 2011