cover transport processes, cell physiology, the cardiovascular system, signal processing, biomechanics and tissue engineering. The theoretical background to the subjects is covered in substantial depth. Where additional mathematical knowledge is necessary, this is given in an introductory way. My attention was particularly attracted to the chapter on principals of biomechanics where the modeling of human movement is described in detail. Also the chapter on applications of biomechanics is fascinating. Here, we see how the biomechanics of swimming is modeled using the equations of motion, or discover how to predict ulcer formation on the skin, or analyze the lung sounds in normal and emphysematous subjects. The brief chapter on tissue engineering is an excellent introduction to the subject, and the description of future trends leading up to the bionic person put in perspective. As the authors write at the end of the last chapter, we are living in exciting times. He is not the only one who cannot wait to see what will develop. An excellent introduction to the subject.

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Jennifer Dressman and Johannes Krämer, editors. Pharmaceutical Dissolution Testing (2005, Taylor & Francis, London) 429 pp € 128. ISBN 0-8247-5467-0

This is an excellent handbook on methods of dissolution testing of pharmaceuticals. As the editors claim in their preface, this book really does cover all aspects of dissolution testing, from the apparatus through development of methodology to the analysis and interpretation of results. The dominant theme is, of course, orally administered dosage forms.

I found that I spend most of my time looking through Chapter 1, which deals with the historical development of dissolution testing. This is a fascinating story, and the authors of this chapter present this history in readable and scientifically well-founded fashion. I particularly liked the way the authors identify particular scientists who have made a major contribution in this field. Names such as Beckett, Amidon, Levy, and Wagner are no surprise. If Herbert Stricker should read this review, I suggest he checks out the praise this chapter showers on his work from the 1970's. There follows two chapters on compendia testing equipment and its validation, as well as the FDA perspective on this subject. These chapters are all essential reading to understand the background to the subsequent scientific chapters in this book. Clive Wilson's chapter on gastrointestinal transit and drug absorption is very fine work. He discusses in detail the passage of solid dosage forms through the gastrointestinal tract which make clear the problems and limitations of oral drug delivery. Diebold's chapter on hydrodynamic consideration of dissolution testing is kept on a simple level and therefore is both understandable and relevant for day-to-day dissolution testing. In my opinion the best chapter in the book (apart from Chapter 1) is Jenny Dressman's description of development of dissolution testing based on gastrointestinal physiology. This contains a lot of sound science based on the author's many years of experiments as a pioneer of bio-relevant dissolution testing. There follow very good chapters on the interpretation of dissolution time profiles, and also establishing in vivo/in vitro correlations. There follows an industrial perspective of dissolution method development, which will certainly be of use to any industrial pharmaceutical scientists attempting to set up workable methods. It may be hackneyed to say so, but this book is a really valuable contribution to the scientific literature. It contains some excellent chapters, and is a sound mixture of historical perspective, forward-looking science, and practiced-based dissolution methodology. I recommend this book to all pharmaceutical scientists working with dissolution testing in either industry or academia.

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