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Book review

M.M. Amiji, editor. "Polymeric Gene Delivery", Principles and Applications (2005, CRC Press, Boca Raton) ISBN: 0-8493-1934-X, € 179,95

After an increase in success of viral vectors for gene therapy and major drawbacks in clinical trials the topic of non-viral gene delivery became a major focus in many research groups over the last years. With 90 experts contributing to this book nearly the complete area of worldwide research in non-viral gene delivery is included.

The book starts with a preface by the Editor followed by an introduction of Robert Langer who is undoubtedly one of the leading scientists in polymeric drug delivery. Each who attended one of his presentations will agree the enthusiasm and excitement of Robert Langer's talks. Other than him, many famous scientists contributed to this book but listing their names would just be impossible in the context of this book review.

The book "Polymeric Gene Delivery", Principles and Applications, possesses five parts and is divided into 40 chapters. In part 1, with the topic "Gene Delivery: Challenges and Opportunities", four chapters are describing the background of cell specific targeting, biological barriers, cellular uptake and trafficking as well as the pharmacokinetics of DNA and useful vectors. Part 2 deals with different condensing polymers and is additionally divided in non-biodegradable polymers (chapters 6–12) and biodegradable polymers (chapters 13–18). The wide range of polymers included are for example poly(L-lysins), polyethylenimine, methacrylate modifications, dendrimers, lipopolymeres, polysaccharides and chitosan. Additionally to the condensing systems, non-condensing systems are a topic in part 3, chapters 19–21. A logical sequential order continues with part 4 which focuses the use of nanoparticulate formulations (chapters 22–27) and polymeric microspheres (chapters 28–30). There are a variety of popular polymers like poly(lactic acid) and poly(alkylcyanoacrylate) described as well as some new simple and very promising biopolymers like gelatin. Finally, the topics in part 5 expand on the applications, application routes or specific targeting of the delivery systems regarding their applications. Reviewing the book, there is tremendous information on the formulation of polymeric gene delivery systems, with fewer details in the application part. Nevertheless, this excellent book was a pleasure to read and a must for everybody interested in polymers, with an aim in use of polymers for drug targeting and of course in the wide application field of gene therapy.

To sum up the review on the book "Polymeric Gene Delivery", Principles and Applications, I highly recommend it not only for people dealing with gene delivery issues but also to everybody in the research area of polymeric and colloidal drug delivery; a big compliment on the Editor and the compilation of excellent contributions for this book.

Conrad Coester*
Department for Pharmacy,
Pharmaceutical Technology and Biopharmacy,
Ludwig-Maximilians University,
Munich, Germany

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* Tel.: +49 89 2180 77025.