



# Pharmaceutical Dosage Forms: Parenteral Medications

Third Edition

Volume 1: Formulation  
and Packaging



Edited by  
Sandeep Nema  
John D. Ludwig

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*Pfizer, Inc.*

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To my parents Walter and Ruth Ludwig and my wife Sue Ludwig  
To my parents Hari and Pratibha Nema and my wife Tina Busch-Nema*

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