



Application of Peptide-Based Prodrug Chemistry in Drug Development (SpringerBriefs in Pharmaceutical Science & Drug Development)

Arnab De

Download now

Read Online ➔

[Click here](#) if your download doesn't start automatically

Application of Peptide-Based Prodrug Chemistry in Drug Development (SpringerBriefs in Pharmaceutical Science & Drug Development)

Arnab De

Application of Peptide-Based Prodrug Chemistry in Drug Development (SpringerBriefs in Pharmaceutical Science & Drug Development) Arnab De

Macromolecular (specifically peptide-based) drugs could potentially be highly effective medicines. However they have a relatively short duration of action and variable therapeutic index. An example of such a peptide is Glucagon-like Peptide I which could potentially be used as a revolutionary drug for diabetes. This is because it stimulates insulin only when the blood glucose level is high thereby reducing the risk of hypoglycemia (a significant disadvantage of using insulin is that an insulin overdose is the single most potent cause of life-threatening hypoglycemia). However it's short duration of action (half-life of 2 minutes in plasma) precludes its therapeutic use.

In this volume, the use of novel therapeutics like GLP1 as an alternative to tradition insulin-based drugs in diabetes is described. *Application of Peptide-Based Prodrug Chemistry in Drug Development* elucidates the traditional concept of prodrugs as “specialized non-toxic protective groups used in a transient manner to alter or to eliminate certain limiting properties in the parent small molecule” (IUPAC definition). It goes on to provide insight into how prodrugs of peptides (with GLP1 as an example) could be appropriately used to extend the biological half life, broaden the therapeutic index of macromolecules and improve the pharmacodynamics of such drugs. Author explains the logic behind designing peptide prodrugs, synthetic procedures and bioassays to examine the conversion of the prodrug to the drug under therapeutic conditions. The prodrugs described slowly convert to the parent drug at physiological conditions of 37C and pH 7.2 driven by their inherent chemical instability without the need of any enzymatic cleavage. The diketopiperazine and diketomorpholine (DKP and DMP) strategies for prodrug conversion are demonstrated in detail with special emphasis on the chemical flexibility that it offers to develop prodrugs with variable time actions.

This book will be of useful to chemists, biochemists, medicinal chemists, biologists and people in the medical profession (doctors). It may be used in undergraduate classes but will certainly help post-graduate students and advanced professionals.

The author is grateful to Prof. Richard DiMarchi (Standiford H. Cox Professor of Chemistry and the Linda & Jack Gill Chair in Biomolecular Sciences at Indiana University) for valuable suggestions. The foreword for the book has been written by Prof. Jean Martinez, (Legion d'Honneur awarded by the French Republic; Professor of Chemistry and Medicinal Chemistry of the University of Montpellier, France; and Chairman of European Peptide Society, 2002-2010).

 [Download Application of Peptide-Based Prodrug Chemistry in Drug ...pdf](#)

 [Read Online Application of Peptide-Based Prodrug Chemistry in Dru ...pdf](#)

Download and Read Free Online Application of Peptide-Based Prodrug Chemistry in Drug Development (SpringerBriefs in Pharmaceutical Science & Drug Development) Arnab De

Download and Read Free Online Application of Peptide-Based Prodrug Chemistry in Drug Development (SpringerBriefs in Pharmaceutical Science & Drug Development) Arnab De

From reader reviews:

Heather Reader:

What do you concentrate on book? It is just for students because they're still students or the item for all people in the world, the particular best subject for that? Just you can be answered for that query above. Every person has several personality and hobby for every other. Don't to be obligated someone or something that they don't want do that. You must know how great along with important the book Application of Peptide-Based Prodrug Chemistry in Drug Development (SpringerBriefs in Pharmaceutical Science & Drug Development). All type of book can you see on many solutions. You can look for the internet resources or other social media.

Wesley Jerkins:

Many people spending their period by playing outside using friends, fun activity having family or just watching TV 24 hours a day. You can have new activity to pay your whole day by studying a book. Ugh, ya think reading a book will surely hard because you have to use the book everywhere? It all right you can have the e-book, having everywhere you want in your Smart phone. Like Application of Peptide-Based Prodrug Chemistry in Drug Development (SpringerBriefs in Pharmaceutical Science & Drug Development) which is getting the e-book version. So , try out this book? Let's see.

Bruce Mull:

Don't be worry when you are afraid that this book can filled the space in your house, you could have it in e-book approach, more simple and reachable. That Application of Peptide-Based Prodrug Chemistry in Drug Development (SpringerBriefs in Pharmaceutical Science & Drug Development) can give you a lot of pals because by you looking at this one book you have point that they don't and make an individual more like an interesting person. This specific book can be one of one step for you to get success. This guide offer you information that perhaps your friend doesn't recognize, by knowing more than other make you to be great individuals. So , why hesitate? Let us have Application of Peptide-Based Prodrug Chemistry in Drug Development (SpringerBriefs in Pharmaceutical Science & Drug Development).

Fred Musso:

As we know that book is very important thing to add our know-how for everything. By a guide we can know everything we want. A book is a pair of written, printed, illustrated as well as blank sheet. Every year seemed to be exactly added. This reserve Application of Peptide-Based Prodrug Chemistry in Drug Development (SpringerBriefs in Pharmaceutical Science & Drug Development) was filled concerning science. Spend your extra time to add your knowledge about your scientific research competence. Some people has diverse feel when they reading a book. If you know how big benefit of a book, you can experience enjoy to read a e-book. In the modern era like at this point, many ways to get book which you wanted.

**Download and Read Online Application of Peptide-Based Prodrug
Chemistry in Drug Development (SpringerBriefs in Pharmaceutical
Science & Drug Development) Arnab De #N92FUIHX0YW**

Read Application of Peptide-Based Prodrug Chemistry in Drug Development (SpringerBriefs in Pharmaceutical Science & Drug Development) by Arnab De for online ebook

Application of Peptide-Based Prodrug Chemistry in Drug Development (SpringerBriefs in Pharmaceutical Science & Drug Development) by Arnab De Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Application of Peptide-Based Prodrug Chemistry in Drug Development (SpringerBriefs in Pharmaceutical Science & Drug Development) by Arnab De books to read online.

Online Application of Peptide-Based Prodrug Chemistry in Drug Development (SpringerBriefs in Pharmaceutical Science & Drug Development) by Arnab De ebook PDF download

Application of Peptide-Based Prodrug Chemistry in Drug Development (SpringerBriefs in Pharmaceutical Science & Drug Development) by Arnab De Doc

Application of Peptide-Based Prodrug Chemistry in Drug Development (SpringerBriefs in Pharmaceutical Science & Drug Development) by Arnab De Mobipocket

Application of Peptide-Based Prodrug Chemistry in Drug Development (SpringerBriefs in Pharmaceutical Science & Drug Development) by Arnab De EPub

Application of Peptide-Based Prodrug Chemistry in Drug Development (SpringerBriefs in Pharmaceutical Science & Drug Development) by Arnab De Ebook online

Application of Peptide-Based Prodrug Chemistry in Drug Development (SpringerBriefs in Pharmaceutical Science & Drug Development) by Arnab De Ebook PDF