

Chemistry textbook is a recipe collection for future pharma

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Pharmaceuticals of the future will be fashioned using the human body's own chemical substances, proteins and peptides. And now, University of Copenhagen chemists have published the ultimate DIY book for laboratory chemists in search of this next generation of medicines.

Peptide Synthesis and Applications is published by Springer, a well-esteemed publishing house. Its lead author, Knud J. Jensen, is a professor in the section for Chemical Biology and Nanoscience at the University of Copenhagen's Department of Chemistry. Along with former colleagues Pernille Tofteng Shelton and Søren L. Pedersen, Jensen has delivered this textbook to the field of chemistry. Knud J. Jensen is among the worlds most renowned when it comes to using chemical methods in the design and synthesis of natural-like peptides. Yet, he wouldn't mind new competitors.

"We wrote this book for those who are just getting into [peptide synthesis](#), as well as for those who are already researching peptides but want to shift their approach," says the 52-year-old professor.

Peptides are small, protein-like molecules deployed by the body in various functions - including as neurotransmitters, hormones and even antibiotics. Over the past few decades they have become indispensable for basic research in biology, biochemistry and [chemical biology](#). However, they are also important in applied research, as evidenced by the more than 70 peptide-based pharmaceuticals currently found on the shelves of pharmacies. Therefore, [peptides](#) are essential when pharma

industry chemists head into their company laboratories.

Above all else, the textbook is an overview of tried, proven methods and instruments according to Jensen.

"We have done our utmost to create an ultramodern book with [sound advice](#) and step-by-step laboratory guidance. Therefore, I invited some of my toughest competitors to write individual chapters," explains Professor Jensen.

Rival views were valuable when it came to discussing instrumentation. Jensen was involved in the development of one of the field's work horses, the Biotage Syro Wave. The Syro Wave is a kind of synthesis robot coupled with a microwave oven. Its main competitor was developed by an American firm whose leading researcher was invited to contribute the chapter on this rival apparatus. Jensen points out that it is important that a researcher contributed.

"This has nothing to do with marketing another apparatus. It is about ensuring a credible and fair assessment of what ultimately benefits research," concludes Jensen.

Chemistry is unlocking the secrets of nature in Knud J. Jensens Copenhagen laboratory.

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