

Computational Biomedicine

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#2852728 in Books 2014-08-12 Original language: English PDF # 1 7.60 x .50 x 10.40l, #File Name: 0199658188432 pages | File size: 17.Mb

Peter Coveney, Vanessa Diaz, Peter Hunter, Marco Viceconti : Computational Biomedicine before purchasing it in order to gauge whether or not it would be worth my time, and all praised Computational Biomedicine:

By the end of the twenty-first century, computer-based modelling and simulation will be integral to the way clinical decisions are taken. Drugs will be selected on the basis of an individual patient's "digital profile", while clinical treatments will be tailor-made for the individual in question. For this to come to pass, however, we must prepare for a future where we can simulate our own bodies with precision, drawing upon remarkable advances in information technology, computer, mathematical, physical and engineering science, data management, and high performance

computing. Computational Biomedicine lays the foundations for a new approach to the subject - one that unifies the different strands of a broad-ranging subject, and demonstrates how computational biomedicine is a powerful tool with the potential to revolutionise our understanding of the human body, and the therapeutic strategies available to maintain and protect it. Written by a team of world-leading experts in the field, it explores the modelling of physiological systems at different scales - cells, tissues, organs - before considering the issues around biomedical computing, and data collection and analysis. It emphasises how a theoretical understanding of computational biomedicine translates into practice, with illustrative examples and case studies used throughout. Computational Biomedicine is the perfect introduction to the subject for anyone new to the field, from student to researcher. Online Resource Centre The Online Resource Centre to accompany Computational Biomedicine features figures from the book in electronic format, for download by registered adopters.

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