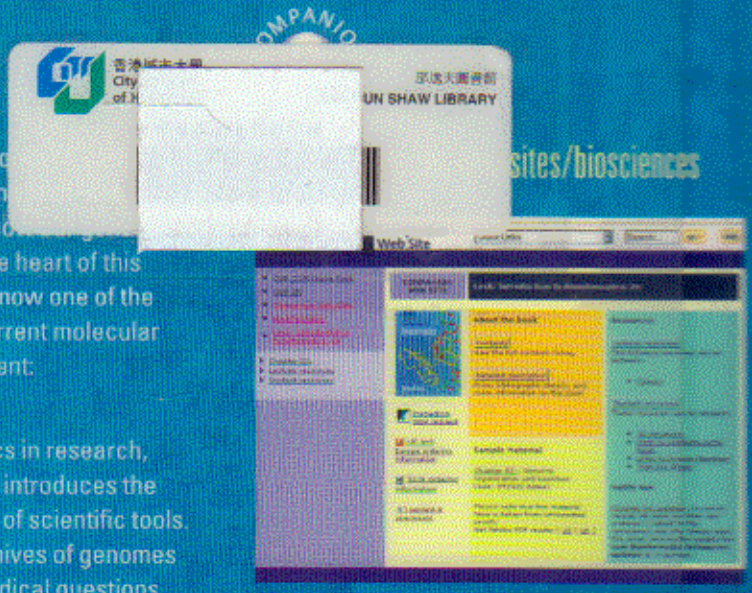
INTRODUCTION TO

Bioinformatics



On 26 June 2000, the completion of the draft sec
Human Genome saw the sciences of biology an
change forever. It promised new insights into ho
shape who we are, and how we function. At the heart of this breakthrough lies a scientific discipline that is now one of the most important knowledge-building tools in current molecular and cellular biology, and healthcare development: bioinformatics.

Written by a pioneer of the use of bioinformatics in research, *Introduction to Bioinformatics*, second edition, introduces the student to the power of bioinformatics as a set of scientific tools. The book explains how to access the data archives of genomes and proteins, and the kind of biological and medical questions these data and tools can answer.

Retaining and enhancing the pedagogy of the first edition, including the lucid presentation, and the variety of exercises and problems, the book explores the computational tools of bioinformatics without demanding detailed prior knowledge. A variety of interactive resources is also included to encourage hands-on learning by the student.

New to this edition:

- New chapter on proteomics and systems biology, reflecting current advances in microarray analysis, and genomic and proteomic databases
- Expanded coverage of bioinformatics as applied to drug discovery and design
- References to the Protein Data Bank for all structures cited in the book, facilitating access to 3D representations of these structures
- Answers to end-of-chapter exercises, provided at the end of the book

The companion web site includes:

- Figures from the book, available to download
- Web link library of all URLs cited in the book
- Hyperlinks to further reading articles
- Links to PDB structures of all proteins depicted in the book
- Data from the book, in computer-readable form
- Guidance to help students respond to end-of-chapter problems

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