Research methods for the biosciences

Oxford University Press - Research Methods For The Biosciences [PDF] Download Full

Predictions	Impact on biosciences
Massive growth in bioscience research computing	More data; more computing power; more algorithms; more applications; and more insight and knowledge generated. Progress can only accelerate research and improve reproducibility and consistency.
Commoditisation of research computing	As tools go from being fluid to translational to specific, they will become commoditised. Standard hardware models (such as GPUs) will become more pervasive, and software reuse will happen more through containers and cloud applications.
Data and process standardisation	As data, workflow, and processing standards mature, they will yield platforms that give the best computing power and value for money for well-established research tasks (as has happened for genome sequencing, for example).
Specialisation of research computing in bioscience research	Specialisation in the biosciences, such as innovative microscopy or XFELs, will continue to accelerate. Knowledge of the underpinning computational tools will be essential for researchers in these fields.
Data analysis at speed	The increase in data production in the biosciences means that the ability to analyse and compress data as they are generated will become ever more important.
Multiscale visualisation and modelling tools	The multiresolution nature of bioimaging data requires multiscale modelling and visualisation tools to understand how structure connects to biological function.
Rise of commercial comp biotech services	Commercial services will step in to provide bioscience computation in a similar manner to the emergence of gene-sequencing services.
New ethical issues emerge	We will become increasingly coupled to computation, through wearable sensor technologies, virtual reality, and implantable devices. The long-term consequences for society will require a broad interdisciplinary base to assess, e.g., neuroscience, genomics, psychology, physiology, and computer science.
Growth in visualisation and 'citizen science'	As bioscience software matures, focus will shift from functionality to visualisation tools for best exploring the data [39], which will include virtual reality [37]. Such rich computational experiences will engage a wide public audience with bioscience research, as is already happening for bioimaging [38,39].

Abbreviations: GPU, graphical processing unit; XFEL X-ray free-electron laser.

https://doi.org/10.1371/journal.pcbi.1000868.t001

Description: -
-
Tombs -- China -- To 221 B.C.
Pottery, Chinese -- To 221 B.C.
Burial -- China -- To 221 B.C.
Agriculture -- Study and teaching.
Agriculture -- Curricula -- Junior high schools.
Dental caries
Cookery, German
Knowledge, Theory of, in literature
National characteristics, American, in literature
Self in literature
Labor in literature
Seafaring life in literature
Sailors in literature
American literature -- 19th century -- History and criticism
Sea stories, American -- History and criticism
Life sciences -- Research -- Methodology.Research methods for the biosciences
-Research methods for the biosciences
Notes: Includes bibliographical references (p. [378]) and index.
This edition was published in 2006

Filesize: 55.97 MB

Tags: #Research #methods #for #the #biosciences #in #SearchWorks #catalog

Research Methods for The Biosciences by Debbie Holmes 9780198728498 for sale online

Developing Research Proposals will help readers to understand the context within which their proposal will be read, what the reviewers are looking for and will be influenced by, while also supporting the development of relevant skills through advice and practical activities. Yet there is a good deal of misinformation and a great lack of guidance about what constitutes a good research proposal and what can be done to maximise one's chances of writing a successful research proposal.

Research Methods For The Biosciences [PDF] Download Full

The research methods presented are illustratively applied to practical cases and are readily accessible to researchers and decision makers alike.

Research Methods for the Biosciences

.

Research Methods for The Biosciences by Debbie Holmes 9780198728498 for sale online

Examining European developments since the sixteenth century, the essays, many by old friends and colleagues, cluster around themes close to his own personal scholarship and related to volumes which he has edited. Discusses various research topics and methods in the biological sciences in a single platform Comprises the latest updates in advanced research techniques, protocols, and methods in biological sciences Incorporates the fundamentals, advanced instruments, and applications of life science experiments Offers troubleshooting for many common problems faced while performing research experiments Kumar, R. The exceptionally clear layout takes students through choosing a project and planning their research; collecting, evaluating, and analyzing their data; and finally reporting their results.

Related Books