Briefings in Bioinformatics
Volume 14 • Number 2 • March 2013

Contents

129 Editorial
Scott Markel and Richard Carter

Papers
131 A brief introduction to web-based genome browsers
Jun Wang, Lei Kang, Ge Gao and Jingchu Liu

144 The UCSC genome browser and associated tools
Robert M. Kuhn, David Haussler and W. James Kent

162 Using GBrowse 2.0 to visualize and share next-generation sequence data
Lincoln D. Stein

172 Visualizing next-generation sequencing data with JBrowse
Oscar Westesson, Mitchell Skinner and Ian Holmes

178 Integrative Genomics Viewer (IGV): high-performance genomics data visualization and exploration
Helga Thorvaldsdóttir, James T. Robinson and Jill P. Mesirov

193 Using Tablet for visual exploration of second-generation sequencing data
Iain Milne, Gordon Stephen, Micha Boyer, Peter J. A. Cock, Leighton Pritchard, Linda Cardle, Paul D. Shaw and David Marshall

203 BamView: visualizing and interpretation of next-generation sequencing read alignments
Tim Carver, Simon R. Harris, Thomas D. Otto, Matthew Bennington, Julian Parkhill and Jacqueline A. McQuillan

213 Hawkeye and AMOS: visualizing and assessing the quality of genome assemblies
Michael C. Schatz, Adam M. Phillippy, Daniel D. Sommer, Arthur L. Delcher, Daniela Piuw, Giuseppe Narzisi, Steven L. Salzberg and Mihai Pop

225 Motif discovery and transcription factor binding sites before and after the next-generation sequencing era
Federico Zambelli, Graziano Pesole and Giulio Pavesi

238 Bioinformatics opportunities for identification and study of medicinal plants
Vivekanand Sharma and Indra Neil Sarkar

251 Machine learning approaches for the discovery of gene–gene interactions in disease data
Rosanna Upstill-Goddard, Diana Eccles, Joerg Fliege and Andrew Collins
IN THE US, PLEASE CONTACT:
Journals Customer Service Department,
Oxford University Press,
2001 Evans Road,
Cary, NC 27513, USA.
E-mail: jnlorders@oxfordjournals.org.
Tel: (919) 677-1714.

IN JAPAN, PLEASE CONTACT:
Oxford University Press,
4-5-10-8F, Shiba, Minato-ku, Tokyo, 108-8366.
Japan.
E-mail: custservjp@oup.com
Tel: (03) 5444 5858.
Fax: (03) 3454 2029.

FOR FURTHER INFORMATION, PLEASE CONTACT:
Journals Customer Service Department,
Oxford University Press,
Great Clarendon Street,
Oxford OX2 6DP, UK.
E-mail: jnls.cust.serv@oup.com.

METHODS OF PAYMENT:


SUPPLEMENTS, REPRINTS AND CORPORATE SALES
For requests from industry and companies regarding supplements, bulk article reprints, sponsored subscriptions, translation opportunities for previously published material, and corporate online opportunities, please e-mail special.sales@oup.com.
Fax: +44 (0) 1865 353485.

PERMISSIONS
For information on how to request permissions to reproduce articles/information from this journal, please visit www.oxfordjournals.org/jnls/permissions.

ADVERTISING
Advertising, inserts and artwork enquiries should be addressed to Advertising and Special Sales, Oxford Journals, Oxford University Press, Great Clarendon Street, Oxford, OX2 6DP, UK. Tel: +44 (0) 1865 354787.
Fax: +44 (0) 1865 353774.
E-mail: jnlsadvertising@oxfordjournals.org.

DISCLAIMER
Statements of fact and opinion in the articles in Briefings in Bioinformatics are those of the respective authors and contributors and not of Bioinformatics or Oxford University Press. Neither Oxford University Press nor Briefings in Bioinformatics make any representation, express or implied, in respect of the accuracy of the material in this journal and cannot accept any legal responsibility or liability for any errors or omissions that may be made. The reader should make his/her own evaluation as to the appropriateness or otherwise of any experimental technique described.

© 2013 Briefings in Bioinformatics.

All rights reserved; no part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise without prior written permission of the Publishers, or a licence permitting restricted copying issued in the UK by the Copyright Licensing Agency Ltd, 90 Tottenham Court Road, London W1P 9HE, or in the USA by the Copyright Clearance Center, 22 Rosewood Drive, Danvers, MA 01923.

Typeset by Glyph International, Bangalore, India.
Printed by C.O.S. Printers Pte Ltd, Singapore.