

Genetic Analysis applies the combined power of molecular biology, genetics, and genomics to explore how the principles of genetics can be used as analytical tools to solve biological problems. This new edition:

- illustrates the conceptual basis of key analytical tools with carefully selected examples from a range of model organisms, and encourages the reader to look beyond the examples to see how these tools can be used to explore a wide range of biological questions
- covers the latest and most powerful experimental tools to provide a state-of-the-art review of the field, giving insights into gene networks and interactions
- includes extended case studies that enable the reader to fully get to grips with how genetic tools can be used to understand biological systems in the real world.

"Genetic Analysis offers a conceptual unity that makes sense of everything. It is very well written, explaining concepts in a narrative manner."

Dr. Steve Mount, Department of Biology, University of Maryland

"This is a good bridge to graduate school for senior undergraduates. It models the thinking behind genetic and genomic analysis."

Prof. Shoumita Dasgupta, Boston University School of Medicine

"This is at the appropriate level for advanced undergraduates and first-year graduate students. It is ideal for courses that are based on the reading and discussion of the primary literature."

Dr. Brian Condie, Department of Genetics, University of Georgia

NEW TO THIS EDITION:

- A new chapter on genome editing with focus on the CRISPR-Cas 9 system
- New content on the analysis of gene activity using temperature-sensitive mutations and mosaics
- Increased coverage of epigenetics, updated with the latest developments in the field
- A new learning feature called "Literature Link," which connects each chapter's content to cutting-edge research



online resources

www.oup.com/he/meneely3e

The online resources to accompany *Genetic Analysis* feature the following material for students and teachers:

For students:

- Practice problems and solutions to test your knowledge of the concepts presented, and help you to master them
- Online datasets with which to practise analytic techniques

For registered adopters of the book:

- Figures from the book in electronic format, ready to download
- Journal clubs—suggested papers and discussion questions linked to topics covered in the book.

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