

Essential Genetics and Genomics

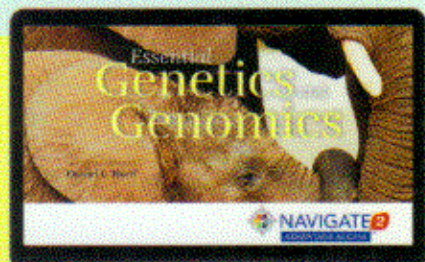
SEVENTH EDITION
Daniel L. Hartl

Dan Hartl once again takes students on the exciting journey of learning about modern genetics in an updated seventh edition of *Essential Genetics and Genomics*. With carefully chosen topics to help students attain scientific competency, Dr. Hartl expertly covers the fundamentals of genetics from the perspective of genomics, including gene transmission, mutation, expression, and regulation. New and updated *Stop & Think* problems, *Key Concept* checks, and *Human Connection* feature boxes throughout chapters, along with extensive end-of-chapter review and study material that encourage students to analyze and apply new skills, further emphasize the text's focus on student success. The seamless integration of "molecular genetics" and "classical genetics" coupled with the copious practice and problem-solving opportunities make *Essential Genetics and Genomics, Seventh Edition* a unique resource for learning and applying genetics to our world.

To ensure students are prepared for introductory genetics, a new online *Readiness Assessment* is available to complete prior to diving into the material. Students simply answer the online questions to obtain a personalized score with tailored areas to focus their review. Students are then directed to the color-coded *Readiness Review* section in the back of the text to practice the areas where additional study is needed. Sections include *Math in Genetics*, *Science Prerequisites*, and *Thinking Like a Scientist*. Never has learning genetics been so straightforward!

NEW & POPULAR FEATURES

- **NEW** online *Readiness Assessment* and in-text *Readiness Review* ensure students have the foundational knowledge for learning and applying introductory genetics
- **NEW** *Stop & Think* problems inserted at strategic points in the text reinforce understanding and encourage higher-order, analytical thinking
- **NEW** discussions on recent methods and findings have been added, including synthetic bacteria, higher-order chromatin structure, high-throughput genomic sequencing methods, personalized medicine, direct-to-consumer genetic services and testing kits, and CRISPR/Cas9 gene editing
- **NEW** interior design with over 100 NEW or REVISED illustrations, photos, and tables that unlock complex topics (688 illustrations/photos in total)
- Learning Objectives added to the beginning of each chapter help students to identify the key concepts and skills they should acquire from the chapter and apply them at a variety of learning levels including comprehension, application, analysis, and synthesis
- End-of-book Glossary and a compilation of frequently used *Word Roots* help students understand key genetic terms and make them part of their vocabulary



DYNAMIC TECHNOLOGY SOLUTIONS

Includes access to Navigate 2 online learning materials, including a comprehensive and interactive eBook, a *Readiness Assessment* to ensure students are prepared for learning introductory genetics, links to useful and relevant internet resources, student practice activities and assessments, a full suite of instructor resources, learning analytics reporting tools, and more.



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