

Features:

- Clear, readable explanations provide a concise story about how cells function at the molecular level.
- An intuitive chapter flow starts with genome organization, gene expression, and RNA processing as a foundation for understanding every aspect of cellular function and physiology.
- Brings cellular biology to life for students interested in medical science by explaining how mutations in genes can compromise virtually every cellular system and predispose to human disease. Knowledge of cell biology has led to new treatments for cancer, heart failure, cystic fibrosis, and many other diseases.
- Unique illustrations with realistic proportions and relationships explain every cellular process including the assembly of SARS CoV-2, the structures attaching mitotic chromosomes to microtubules, the mechanism of DNA replication and how pumps, carriers and channels orchestrate physiological processes from synaptic transmission to cellular volume regulation.
- Covers exciting breakthroughs such as SMC motor proteins actively organizing chromosomal DNA, TOR kinases regulating metabolism, new types of immunotherapy for cancer treatment, mechanisms regulating fast axonal transport and their relation to neurodegenerative diseases, how completion of DNA replication sets the time for cells to enter mitosis, how a cascade of signals specifies the site of cell division, and newly understood pathways of normal and pathological cell death.
- Enhanced eBook version included with purchase. Your enhanced eBook allows you to access all of the text, figures, and references from the book on a variety of devices.

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