
FURTHER READING

There are many comprehensive textbooks of biochemistry and molecular biology and no one book that can satisfy all needs. Different readers subjectively prefer different textbooks and hence we do not feel it would be particularly helpful to recommend one book over another. Rather we have listed some of the leading books which we know from experience have served their student readers well.

General reading

- Alberts, B., Johnson, A., Lewis, J., Raff, M., Roberts, K. and Walter, P. (2002) *Molecular Biology of the Cell*, 4th Edn. Garland Science, Taylor & Francis Group, New York.
- Berg, J.M., Tymoczko, J.L. and Stryer, L. (2002) *Biochemistry*, 5th Edn. W.H. Freeman and Company, New York.
- Brown, T.A. (1999) *Genomes*, 2nd Edn. BIOS Scientific Publishers Ltd., Oxford.
- Lodish, H., Berk, A., Matsudaira, P., Kaiser, C.A., Krieger, M., Scott, M.P., Zipursky, S.L. and Darnell, J. (2003) *Molecular Cell Biology*, 5th Edn. W.H. Freeman and Company, New York.
- Voet, D. and Voet, J.G. (2002) *Biochemistry*, 3rd Edn. John Wiley and Sons, New York.
- Watson, J.D., Baker, T.A., Bell, S.P., Gann, A., Levine, M. and Losick, R. (2004), *Molecular Biology of the Gene*, 5th Edn, Pearson Education.

More advanced reading

The following selected articles are recommended to readers who wish to know more about specific subjects. In many cases they are too advanced for first year students but are very useful sources of information for subjects that may be studied in later years.

Section A

- Brunet, S., Thibault, P., Gagnon, E., Kearney, P., Bergeron, J.J.M. and Desjardins, M. (2003) Organelle proteomics: looking at less to see more. *Trends Cell Biol.* **13**, 629–638.
- de Duve, C. (1996) The birth of complex cells. *Sci. Amer.* **274**(4), 38–45.
- Egner, A. and Hell, S.W. (2005) Fluorescence microscopy with super-resolved optical sections. *Trends Cell Biol.* **15**, 207–215.
- Farquhar, M.G. and Palade, G.E. (1998) The Golgi apparatus: 100 years of progress and controversy. *Trends Cell Biol.* **8**, 2–10.
- Hirokawa, N. and Takemura, R. (2003) Biochemical and molecular characterization of diseases linked to motor proteins. *Trends Biochem. Sci.* **28**, 558–565.
- Koonce, M.P. and Samsó, M. (2004) Of rings and levers: the dynein motor comes of age. *Trends Cell Biol.* **14**, 612–619.
- Levy, S.B. (1998) The challenge of antibiotic resistance. *Sci. Amer.* **278**(3), 32–39.
- Yildiz, A. and Selvin, P.R. (2005) Kinesin: walking, crawling or sliding along? *Trends Cell Biol.* **15**, 112–120.

Section B

- Brunet, S., Thibault, P., Gagnon, E., Kearney, P., Bergeron, J.J.M. and Desjardins, M. (2003) Organelle proteomics: looking at less to see more. *Trends Cell Biol.* **13**, 629–638.
- Carugo, O. and Carugo, K.D. (2005) When X-rays modify the protein structure: radiation damage at work. *Trends Biochem. Sci.* **30**, 213–219.
- Fitzkee, N.C., Fleming, P.J., Gong, H., Panasik Jr, N., Street, T.O. and Rose, G.D. (2005) Are proteins made from a limited parts list? *Trends Biochem. Sci.* **30**, 73–80.

- Hogg, P.J. (2003) Disulphide bonds as switches for protein function. *Trends Biochem. Sci.* **28**, 210–214.
- Netzer, W.J. and Hartl, F.U. (1998) Protein folding in the cytosol: chaperonin-independent and -independent mechanisms. *Trends Biochem. Sci.* **23**, 68–73.
- Rappsilber, J. and Mann, M. (2002) What does it mean to identify a protein in proteomics? *Trends Biochem. Sci.* **27**, 74–78.
- Royer Jr, W.E., Knapp, J.E., Strand, K., and Heaslet, H.A. (2001) Cooperative hemoglobins: conserved fold, diverse quaternary assemblies and allosteric mechanisms. *Trends Biochem. Sci.* **26**, 297–304.
- Thomas, P.J., Qu, B.H. and Pederson, P.L. (1995) Defective protein folding as a basis of human disease. *Trends Biochem. Sci.* **20**, 456–459.
- Wahl, M.C. and Sundaralingam, M. (1997) C-H...O hydrogen bonding in biology. *Trends Biochem. Sci.* **22**, 97–102.

Section C

- Berger, F., Ramirez-Hernández, M.H. and Ziegler, M. (2004) The new life of a centenarian: signalling functions of NAD(P). *Trends Biochem. Sci.* **29**, 111–118.
- Hampton, R., Dimster-Denk, D. and Rine, J. (1996) The biology of HMG-CoA reductase: the pros of contra-regulation. *Trends Biochem. Sci.* **21**, 140–145.
- Kantrowitz, E.R. and Lipscomb, W.N. (1990) *Escherichia coli* aspartate transcarbamoylase: the molecular basis for a concerted allosteric transition. *Trends Biochem. Sci.* **15**, 53–59.
- Krem, M.M. and Di Cera, E. (2002) Evolution of enzyme cascades from embryonic development to blood coagulation. *Trends Biochem. Sci.* **27**, 67–74.

Section D

- Engelhard, V.H. (1994) How cells process antigens. *Sci. Amer.* **271**, 44–51.
- Goldman, R. D. (2000) Antibodies: indispensable tools for biomedical research. *Trends Biochem. Sci.* **25**, 593–595.
- Harding, C.V. and Neefjes, J. (2005) Antigen processing and recognition. *Curr. Opin. Immunol.* **17**, 55–57.
- Janaway, C.A. (1993) How the immune system recognizes invaders. *Sci. Amer.* **269**, 40–47.
- Livák, F. and Petrie, H.T. (2001) Somatic generation of antigen-receptor diversity: a reprise. *Trends Immunol.* **22**, 608–612.
- Manis, J.P., Ming Tian, M. and Frederick, W. A (2002) Mechanism and control of class-switch recombination. *Trends Immunol.* **23**, 31–39.
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Section E

- Beglova, N. and Blacklow, S.C. (2005) The LDL receptor: how acid pulls the trigger. *Trends Biochem. Sci.* In press.
- Bernards, A. and Settleman, J. (2004) GAP control: regulating the regulators of small GTPases. *Trends Cell Biol.* **14**, 377–385.
- Bhatnagar, R.S. and Gordon, J.I. (1997) Understanding covalent modifications of proteins by lipids: where cell biology and biophysics mingle. *Trends Cell Biol.* **7**, 14–20.
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- Gu, H. and Neel, B.G. (2003) The 'Gab' in signal transduction. *Trends Cell Biol.* **13**, 122–130.
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- Parton, R. and Hancock, J.F. (2004) Lipid rafts and plasma membrane microorganization: insights from Ras. *Trends Cell Biol.* **14**, 141–147.
- Taylor, C.W., da Fonseca, P.C.A. and Morris, E.P. (2004) IP₃ receptors: the search for structure. *Trends Biochem. Sci.* **29**, 210–219.

Section F

- Arezi, B. and Kuchta, R.D. (2000) Eukaryotic DNA primase. *Trends Biochem. Sci.* **25**, 572–576.
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- Diffley, J.F.X. (1992) Early events in eukaryotic DNA replication. *Trends Cell Biol.* **2**, 298–304.
- Diller, J.D. and Raghuraman, M.K. (1994) Eukaryotic replication origins – control in space and time. *Trends Biochem. Sci.* **19**, 320–325.
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- Roca, J. (1996) The mechanisms of DNA topoisomerases. *Trends Biochem. Sci.* **20**, 156–160.
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- Bachellerie, J.P. and Cavaillé, J. (1997) Guiding ribose methylation of rRNA. *Trends Biochem. Sci.* **22**, 257–262.
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Section H

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- Kim, J. and Dang, C.V. (2005) Multifaceted roles of glycolytic enzymes. *Trends Biochem. Sci.* **30**, 142–150.
- Papin, J.A., Price, N.D., Sharon J., Wiback, S.J., Fell, D.A. and Palsson, B.O. (2003) Metabolic pathways in the post-genome era. *Trends Biochem. Sci.* **28**, 250–258.
- Schmidt, S., Sunyaev, S., Bork, P. and Dandekar, T. (2003) Metabolites: a helping hand for pathway evolution? *Trends Biochem. Sci.* **28**, 336–341.
- Section K**
- Anderson, R.G.W. (2003) Joe Goldstein and Mike Brown: from cholesterol homeostasis to new paradigms in membrane biology. *Trends Cell Biol.* **13**, 534–539.
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- Govindjee, H. and Coleman, W.J. (1990) How plants make oxygen. *Sci. Amer.* **262**, 42–45.
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