

PLANT MOLECULAR BIOLOGY AND BIOTECHNOLOGY

Suggested Readings

- Becker JM, Coldwell GA & Zachgo EA. 2007. *Biotechnology - a Laboratory Course*. Academic Press.
- Brown CM, Campbell I & Priest FG. 2005. *Introduction to Biotechnology*. Panima Pub.
- Brown TA. *Gene Cloning and DNA Analysis*. 5th Ed. Blackwell Publishing.
- Dale JW & von Schantz M. 2002. *From Genes to Genomes: Concepts and Applications of DNA Technology*. John Wiley & Sons.
- Gupta PK. 2004. *Biotechnology and Genomics*. Rastogi Publications.
- Sambrook J, Fritsch T & Maniatis T. 2001. *Molecular Cloning - a Laboratory Manual*. 2nd Ed. Cold Spring Harbour Laboratory Press.
- Singh BD. 2007. *Biotechnology Expanding Horiozon*. Kalyani Publishers.

FUNDAMENTALS OF MOLECULAR BIOLOGY

Suggested Readings

- Lewin B. 2008. *Gene IX*. Peterson Publications/ Panima.
- Malacinski GM & Freifelder D. 1998. *Essentials of Molecular Biology*. 3rd Ed. Jones & Bartlett Publishers.
- Nelson DL & Cox MM. 2007. *Lehninger's Principles of Biochemistry*. W.H. Freeman & Co.
- Primrose SB. 2001. *Molecular Biotechnology*. Panima.
- Watson JD, Bakee TA, Bell SP, Gann A, Levine M & Losick R. 2008. *Molecular Biology of the Gene*. 6th Ed. Pearson Education International.

MOLECULAR CELL BIOLOGY

Suggested Readings

- Gupta PK. 2003. *Cell and Molecular Biology*. 2nd Ed. Rastogi Publ.
- Lodish H. 2003. *Molecular Cell Biology*. 5th Ed. W.H. Freeman & Co.
- Primrose SB. 2001. *Molecular Biotechnology*. Panima.

PLANT TISSUE CULTURE AND GENETIC

Suggested Readings

- Bhojwani SS. 1983. *Plant Tissue Culture: Theory and Practice*. Elsevier.
- Christou P & Klee H. 2004. *Handbook of Plant Biotechnology*. John Wiley & Sons.
- Dixon RA. 2003. *Plant Cell Culture*. IRL Press.
- George EF, Hall MA & De Klerk GJ. 2008. *Plant Propagation by Tissue Culture*. Agritech Publ.
- Gupta PK. 2004. *Biotechnology and Genomics*. Rastogi Publ.

- Herman EB. 2005-08. *Media and Techniques for Growth, Regeneration and Storage*. Agritech Publ.
- Pena L. 2004. *Transgenic Plants: Methods and Protocols*. Humana Press.
- Pierik RLM. 1997. *In vitro Culture of Higher Plants*. Kluwer.
- Singh BD. 2007. *Biotechnology: Expanding Horiozon*. Kalyani.

TECHNIQUES IN MOLECULAR BIOLOGY-I

Suggested Readings

- Ausubel FM, Brent R, Kingston RE, Moore DD, Seidman JG, Smith JA & Struhl K. 2002. *Short Protocols in Molecular Biology*. John Wiley.
- Kun LY. 2006. *Microbial Biotechnology*. World Scientific.
- Sambrook J, Russel DW & Maniatis T. 2001. *Molecular Cloning: a Laboratory Manual*. Cold Spring Harbour Laboratory Press.

MICROBIAL/ INDUSTRIAL BIOTECHNOLOGY

Suggested Readings

- Huffnagle GB & Wernick S. 2007. *The Probiotics Revolution: The Definitive Guide to Safe, Natural Health*. Bantam Books.
- Kun LY. 2006. *Microbial Biotechnology*. World Scientific.
- Primrose SB. 2001. *Molecular Biotechnology*. Panima.

MOLECULAR BREEDING

Suggested Readings

- Chittaranjan K. 2006-07. *Genome Mapping and Molecular Breeding in Plants*. Vols. I-VII. Springer.
- 16
- Newbury HJ. 2003. *Plant Molecular Breeding*. Blackwell Publ.
- Weising K, Nybom H, Wolff K & Kahl G. 2005. *DNA Fingerprinting in Plants: Principles, Methods and Applications*. Taylor & Francis.

GENOMICS AND PROTEOMICS

Suggested Readings

- Azuaje F & Dopazo J. 2005. *Data Analysis and Visualization in Genomics and Proteomics*. John Wiley & Sons.
- Brown TA. 2007. *Genome III*. Garland Science Publ.
- Campbell AM & Heyer L. 2004. *Discovery Genomics, Proteomics and Bioinformatics*. Pearson Education.
- Gibson G & Muse SV. 2004. *A Primer of Genome Science*. Sinauer Associates.
- Jollès P & Jörnvall H. 2000. *Proteomics in Functional Genomics: Protein*

Structure Analysis. Birkhäuser.
Kamp RM. 2004. *Methods in Proteome and Protein Analysis*. Springer.
Primrose SB & Twyman RM. 2007. *Principles of Genome Analysis and Genomics*. Blackwell.
Sensen CW. 2005. *Handbook of Genome Research*. Vols. I, II. Wiley CVH.

TECHNIQUES IN MOLECULAR BIOLOGY-II

Suggested Readings

Ausubel FM, Brent R, Kingston RE, Moore DD, Seidman JG, Smith JA & Struhl K. 2002. *Short Protocols in Molecular Biology*. Wiley.
Caldwell G, Williams SN & Caldwell K. 2006. *Integrated Genomics: A Discovery-Based Laboratory Course*. John Wiley.
Sambrook J, Russel DW & Maniatis T. 2001. *Molecular Cloning: a Laboratory Manual*. Cold Spring Harbour Laboratory Press.

BIOSAFETY, IPR AND BIOETHICS

Suggested Readings

Singh BD. 2007. *Biotechnology: Expanding Horizon*. Kalyani.
<http://patentoffice.nic.in>
www.wipo.org
www.dbtindia.nic.in
www.dbtbiosafety.nic.in

ANIMAL BIOTECHNOLOGY

Suggested Readings

Gordon I. 2005. *Reproductive Techniques in Farm Animals*. CABI.
Kindt TJ, Goldsby RA & Osbrne BA. 2007. *Kuby Immunology*. WH Freeman.
Kun LY. 2006. *Microbial Biotechnology*. World Scientific.
Levine MM, Kaper JB, Rappuoli R, Liu MA, Good MF. 2004. *New Generation Vaccines*. 3rd Ed. Informa Healthcare.
Lincoln PJ & Thomson J. 1998. *Forensic DNA Profiling Protocols*. Humana Press.
Portner R. 2007. *Animal Cell Biotechnology*. Humana Press.
Spinger TA. 1985. *Hybridoma Technology in Biosciences and Medicine*. Plenum Press.
Twyman RM. 2003. *Advanced Molecular Biology*. Bios Scientific.

IMMUNOLOGY AND MOLECULAR DIAGNOSTICS

Suggested Readings

Bloom BR & Lambert P-H. 2002. *The Vaccine Book*. Academic Press.
Elles R & Mountford R. 2004. *Molecular Diagnosis of Genetic Disease*. Humana Press.
Kindt TJ, Goldsby RA & Osbrne BA. 2007. *Kuby's Immunology*. WH Freeman.
Levine MM, Kaper JB, Rappuoli R, Liu MA & Good MF. 2004. *New Generation Vaccines*. 3rd Ed. Informa Healthcare.
Lowrie DB & Whalen R. 2000. *DNA Vaccines*. Humana Press.
Male D, Brostoff J, Roth DB & Roitt I. 2006. *Immunology*. Elsevier.
Rao JR, Fleming CC & Moore JE. 2006. *Molecular Diagnostics*. Horizon Bioscience.
Robinson A & Cranage MP. 2003. *Vaccine Protocols*. 2nd Ed. Humana Press.
Spinger TA, 1985. *Hybridoma Technology in Biosciences and Medicine*. Plenum Press.

NANO-BIOTECHNOLOGY

Suggested Readings

Nalwa HS. 2005. *Handbook of Nanostructured Biomaterials and Their Applications in Nanobiotechnology*. American Scientific Publ.
Niemeyer CM & Mirkin CA. 2005. *Nanobiotechnology*. Wiley Interscience.

PRINCIPLES OF GENETICS

Suggested Readings

Klug WS & Cummings MR. 2003 *Concepts of Genetics*. Peterson Education.
Lewin B. 2008. *Genes IX*. Jones & Bartlett Publ.
Russell PJ. 1998. *Genetics*. The Benjamin/Cummings Publ. Co.
Strickberger MW. 1990. *Genetics*. Collier MacMillan.
Tamarin RH. 1999. *Principles of Genetics*. Wm. C. Brown Pubs.
Uppal S, Yadav R, Subhadra & Saharan RP. 2005. *Practical Manual on Basic and Applied Genetics*. Dept. of Genetics, CCS HAU Hisar.

BASIC BIOCHEMISTRY

Suggested Readings

Conn EE & Stumpf PK. 1987. *Outlines of Biochemistry*. John Wiley.
Metzler DE. *Biochemistry*. Vols. I, II. Wiley International.
Nelson DL & Cox MM. 2004. *Lehninger's Principles of Biochemistry*. MacMillan.
Voet D & Voet JG. *Biochemistry*. 3rd Ed. Wiley International.

BIOSTATISTICS AND COMPUTERS

Suggested Readings

- Agarwal BL. 2003. *Basic Statistics*. New Age.
Gupta SP. 2004. *Statistical Methods*. S. Chand & Sons.
Dutta NK. 2002. *Fundamentals of Bio-Statistics*. Kanishka Publ.

PRINCIPLES OF MICROBIOLOGY

Suggested Readings

- Brock TD. 1961. *Milestones in Microbiology*. Infinity Books.
Pelczar ML Jr. 1997. *Microbiology*. Tata McGraw Hill.
24
Stainier RY, Ingraham JL, Wheelis ML & Painter PR. 2003. *General Microbiology*. MacMillan.
Tauro P, Kapoor KK & Yadav KS. 1996. *Introduction to Microbiology*. Wiley Eastern.

INTRODUCTION TO BIOINFORMATICS

Suggested Readings

- Attwood TK & Parry-Smith DJ. 2003. *Introduction to Bioinformatics*. Pearson Education.
Rastogi SC, Mendiratta N & Rastogi P. 2004. *Bioinformatics: Concepts, Skills and Applications*. CBS.

ENVIRONMENTAL BIOTECHNOLOGY

Suggested Readings

- Evans GM & Furlong JC. 2002. *Environmental Biotechnology: Theory and Application*. Wiley International.
Jordening H-J & Winter J. 2006. *Environmental Biotechnology: Concepts and Applications*. Wiley-VCH Verlag.

ADVANCES IN PLANT MOLECULAR BIOLOGY

Suggested Readings

- Buchanan B, Gruissen W & Jones R. 2000. *Biochemistry and Molecular Biology of Plants*. American Society of Plant Physiologists, USA.
Lewin B. 2008. *Gene IX*. Peterson Publications/ Panima.
Malacinski GM & Freifelder D. 1998. *Essentials of Molecular Biology*. 3rd Ed. Jones & Bartlett Publ.

ADVANCES IN GENETIC ENGINEERING

Suggested Readings

Christou P & Klee H. 2004. *Handbook of Plant Biotechnology*. John Wiley & Sons.

Specific journals mentioned later.

ADVANCES IN MICROBIAL BIOTECHNOLOGY

Suggested Readings

Specific journals and published references.

ADVANCES IN CROP BIOTECHNOLOGY

Suggested Readings

Specific journals and published references.

ADVANCES IN FUNCTIONAL GENOMICS

Suggested Readings

Specific journals and published references.

COMMERCIAL PLANT TISSUE CULTURE

Suggested Readings

Specific journals and published references.

ADVANCES IN ANIMAL BIOTECHNOLOGY

Suggested Readings

Selected articles from journals.

PLANT MOLECULAR BIOLOGY & BIOTECHNOLOGY

List of Journals

Advances in Botanical Research
Advances in Enzyme Regulation
Advances in Enzymology
Advances in Genetics
Agricultural and Biological Research
Analytical Biochemistry

Annals of Botany
Archives of Biochemistry and Biophysics
Archives of Microbiology
Biochemical and Biophysical Research Communication
Biochemical Genetics
Biochemistry
Biotechnology and Bioengineering
Critical Reviews in Plant Sciences
Crop Science
EMBO Journal
Euphytica
Genetic and Plant Breeding
Genome
Indian Journal of Genetics and Plant Breeding
Journal of Biotechnology
Journal of Experimental Botany
Journal of General Microbiology
Journal of Heredity
Journal of Plant Biochemistry and Biotechnology
Journal of Plant Biology
Molecular and Cellular Biochemistry
Molecular Breeding
Molecular Genetics and Genomics
Nature
Nature Biotechnology
Plant Cell
Plant Molecular Biology
Plant Physiology
Plant Physiology and Biochemistry
Proceedings of The National Academy of Sciences (USA)
Science
Trends in Biochemical Sciences
Trends in Biotechnology
Trends in Cell Biology
Trends in Food Science and Technology
Trends in Genetics
Trends in Microbiology
Trends in Plant Sciences

e-Resources

National Center for Biotechnology Information
<http://www.ncbi.nlm.nih.gov/>
The World Wide Web Virtual Library: Biotechnology.
31
<http://www.cato.com/biotech/>
The Transgenic/Targeted Mutation Database (TBASE)
<http://www.bis.med.jhmi.edu/Dan/tbase/tbase.html>
Primer on Molecular Genetics
<http://www.bis.med.jhmi.edu/Dan/DOE/intro.html>.
Bioportal
<http://bioportal.gc.ca/english/BioPortalHome.asp>

Access Excellence

<http://www.gene.com/ae>

BioTech Biosources Database: Indiana University

<http://biotech.chem.indiana.edu/>

Information Systems for Biotechnology

<http://gophisb.biochem.vt.edu/>

All About The Human Genome Project (HGP)

<http://www.genome.gov/>

Human Genome Project at the Sanger Institute

<http://www.sanger.ac.uk/HGP/>

UCSC Genome Browser

<http://genome.ucsc.edu/>

Gramene

www.gramene.org/

The Institute for Genomic Research

www.tigr.org