

# **BIBLIOGRAPHY**

## **ABC TECHNICAL SPECIALIST EXAMINATION – MOLECULAR BIOLOGY**

The following recommendations are made for those who wish to prepare to take the examination for the ABC Technical Specialist in Molecular Biology Certificate.

### **Books**

*Biosafety in the Laboratory*, by the National Research Council. (National Academy Press, 1989)

*Criminalistics, An introduction to Forensic Science*, 6<sup>th</sup> Edition, by Saferstein, R. (upper Saddle River, NJ: Prentice Hall, 1998) ISBN 0-13-592950-7

- Chapter 2: “The Crime Scene” (pages 36-55)
- Chapter 7: “The Microscope” (pages 183-199)
- Chapter 12: “Forensic Serology” (pages 361-398)
- Chapter 13: “DNA: A New Forensic Science Tool” (pages 402-431)

*DNA Fingerprinting*, by Kirby, L. (Stockton Press, 1990)

*Electrophoresis: Theory, Techniques, Biochemical & Clinical Applications*, by Andrews, A.T. (Oxford Science Publications)

*Essential Genetics*, 2<sup>nd</sup> Edition, by Hartl and Jones. (Sudbury, MA: Jones and Bartlett, 1999) ISBN 0-7637-0838-0

- Chapter 1: “DNA: The Genetic Code” (pages 1-24)
- Chapter 2: “Mendelian Genetics” (pages 28-60)
- Chapter 3: “The Chromosomal Basis of Heredity” (pages 66-107)
- Chapter 6: “The Chemical Structure and Replication of DNA” (pages 194-230)
- Chapter 13: “Population Genetics and Evolution” (pages 456-487)

*Forensic Examination of Hair*, edited by Robertson, J. (London: Taylor and Francis, 1999) ISBN

- Chapter 3: “Typing of DNA Derived from Hairs” (pages 155-173)

*Forensic science, An Introduction to Criminalistics*, by DeForest, Gaensslen and Lee. (New York: McGraw-Hill, Inc., 1983) ISBN 0-07-016267-0

*Forensic Science Handbook*, edited by Saferstein, R. (Englewood Cliffs, NJ: Prentice Hall, 1982) ISBN 0-13-326850-0

- Chapter 1: “Legal Aspects of Forensic Science” (pages 2-27)
- Chapter 7: “Identification and Grouping of Bloodstains” (pages 267-325)
- Chapter 8: “Biochemical Markers of Individuality” (pages 338-403)

*Forensic Science Handbook, Volume II*, edited by Saferstein, R. (Englewood Cliffs, NJ: Regents/Prentice Hall, 198 ) ISBN 0-13-326877-2

- Chapter 7: “The Identification and Individualization of Semen Stains” (pages 347-392)

*Forensic Science Handbook, Volume III*, edited by Saferstein, R. (Englewood Cliffs, NJ: Regents/Prentice Hall, 1993) ISBN 0-13-325390-2

- Chapter 7: ”Forensic DNA Typing of Highly Polymorphic VNTR Loci” (pages 358-392)

*Interpreting DNA Evidence: Statistical Genetics For Forensic Scientists*, by Evett and Weir, (Sunderland, MA: Sinauer Associates, Inc., 1998) ISBN 0-87893-155-4 (paper)

- Chapter 1: “Probability Theory” (pages 1-21)
- Chapter 2: “Transfer Evidence” (pages 22-42)
- Chapter 4: “Population Genetics” (pages 79-131)
- Chapter 6: “Parentage Testing” (pages 163-187)

*Principles of Population Genetics*, by Hartl and Clark, (Sunderlund, MA: Sinauer Associates, Inc., 1989) ISBN 0-87893-302-6

*Sourcebook in Forensic Serology, Immunology and Biochemistry*, by Gaensslen, R.E., (U.S. Printing Office, Superintendent of Documents, 1983)

*Techniques of Crime Scene Investigation*, 5<sup>th</sup> Edition, by Fisher, B.J. (Boca Raton: CRC Press, 1993) ISBN 0-8493-9506-2

- Chapter 5: “Processing The Crime Scene” (pages 67-88)
- Chapter 8: “Blood and Other Biological Evidence” (pages 217-240)

## Literature

We recommend that you seek out articles pertaining to the application and validation of forensic human DNA identification technology. Listed below are some recommendations where this information is available:

1. *Journal of Forensic Science*
2. *American Journal of Human Genetics*
3. *Biotechniques*
4. *Forensic Science International*
5. *International Journal of Legal Medicine*
6. *NIST STRbase Website: STR bibliography, validation and background data for short tandem repeats and links to other sites.*  
([Http://www.cstl.nist.gov/div831/strbase/](http://www.cstl.nist.gov/div831/strbase/))

## Publications:

Technical Working Group on DNA Analysis Methods, "Guidelines for a QA Program for DNA Analysis", *Crime Laboratory Digest*, Vol 22, No.2, U.S. Department of Justice, 1995.

*DNA Advisory Board Quality Assurance Standards for Forensic DNA Testing Laboratories*, October 1, 1998.

*The Evaluation of Forensic DNA Evidence*, by National Research Council (Washington, D.C.: National Academy Press, 1996) ISBN 0-309-05395-1

## Additional Readings and Sources of Information:

"The Rules of Professional Conduct" supplied by the American Board of Criminalistics.

"Manual", American Society of Crime Laboratory Directors – Laboratory Accreditation Board, 1999 (or most recent update).

No specific citations have been offered in basic biochemistry. We suggest you refer to any general introductory text in biochemistry.

No specific citations have been offered on general laboratory QA/QC and basic laboratory procedures. We therefore suggest that you review your own laboratory's QA/QC policy and standard protocol manuals.