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Chain Reaction (PCR) Products from a Commercial Multiplex Kit; Chapter 13 - Computing Random Match Probability from DNA Profile Data Using Population Databases; Chapter 14 - Mitochondrial Deoxyribonucleic Acid (mtDNA) Single Nucleotide Polymorphism (SNP) Detection; Chapter 15 - Analysis of Deoxyribonucleic Acid (DNA) Sequence Data Using BioEdit; Chapter 16 - Ribonucleic Acid (RNA) Extraction; Chapter 17 - Y-STR Polymerase Chain Reaction (PCR) Deoxyribonucleic acid (DNA) Amplification and Typing; Chapter 18 - Human Genetic Analysis: Paternity or Missing Persons Cases and Statistics; Chapter 19 - Low Copy Number Stochastic Results; Chapter 20 - Using in Silico Methods to Construct a Short-Tandem Repeat (STR) Deoxyribonucleic Acid (DNA) Sequence for Cloning; Chapter 21 - Deoxyribonucleic Acid (DNA) Extraction from Botanical Material and Polymerase Chain Reaction (PCR) Amplification; Chapter 22 - Social, Ethical, and Regulatory Concerns; Selected Forensic DNA Biology Case Studies; Index.

Sommario/riassunto

DNA typing has revolutionized criminal investigations and has become a powerful tool in the identification of individuals in criminal and paternity cases. Forensic DNA Biology: A Laboratory Manual is comprised of up-to-date and practical experiments and step-by-step instructions on how to perform DNA analysis, including pipetting, microscopy and hair analysis, presumptive testing of body fluids and human DNA typing. Modern DNA typing techniques are provided, reflecting real life, where not all institutions and crime labs can afford the same equipment and software. Real case studies w