Advanced Topics in

FORENSIC DNA TYPING: INTERPRETATION

John M. Butler

"As a communicator and researcher engaged forensic DNA analyses, John Butler is at the pinnacle of his profession. As with the previous two volumes in this series, Butler leaves no stone unturned in the clarity of his A to Y coverage of forensic DNA interpretation. This book is bound to find its way onto the fingertips of practitioners, attorneys, and students." — Richard Saferstein, Ph.D., Chief Forensic Scientist (Retired)

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"… It is an excellent companion to his prior book on methodology, providing important information on interpretation of results… The book should prove valuable to all people involved in processing and interpreting results used in forensic genetics and criminal investigation." — Bruce McCord, Ph.D., Professor, Florida International University

"Advanced Topics in DNA Typing/Interpretation is Dr. John Butler's best book yet in his critically acclaimed series of DNA text books..." — Stephen Patrick Hogan, Adjunct Associate Professor of Biological Science and Criminal Justice, State University of New York at Albany

Advanced Topics in Forensic DNA Typing: Interpretation builds upon the previous two editions of John Butler's internationally acclaimed *Forensic DNA Typing* textbook with forensic DNA analysts as its primary audience. Intended as a third-edition companion to the *Fundamentals of Forensic DNA Typing* volume published in 2010 and *Advanced Topics in Forensic DNA Typing: Methodology* published in 2012, this book contains 16 chapters with 4 appendices providing up-to-date coverage of essential topics in this important field. Over 80% of the content of this book is new compared to previous editions.

Key Features

- Step-by-step consideration of principles behind DNA data interpretation and statistical analysis.
- Over 2,000 references included with extensive up-to-date reading lists and Internet resources.
- Clear and insightful information provided in more than 200 figures (many in 4-color), tables, and D.N.A. (Data, Notes & Applications) boxes.
- Allele frequency information for U.S. population groups covering 29 STR loci present in kits.
- DNA mixture example worked with different statistical approaches.
- A chapter devoted to report writing and communicating laboratory results and conclusions supported by interviews with DNA analysts, laboratory directors, independent consultants, police investigators, and lawyers representing prosecution and defense perspectives.

John M. Butler is an NIST Fellow and Special Assistant to the Director for Forensic Science at the U.S. National Institute of Standards and Technology. Dr. Butler earned his Ph.D. from the University of Virginia while doing pioneering research in capillary electrophoresis at the FBI Laboratory's Forensic Science Research Unit. He designed and built STRBase – an Internet-accessible database on short tandem repeat DNA markers that is widely used by forensic scientists. He is a frequent author and presenter on the topic of DNA typing.

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