Record Nr. UNINA9910585942303321

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Titolo Advances in Forensic Genetics

Pubbl/distr/stampa Basel, : MDPI - Multidisciplinary Digital Publishing Institute, 2022

Descrizione fisica 1 online resource (516 p.)

Soggetti Biology, life sciences

Genetics (non-medical)

Research & information: general

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Sommario/riassunto

The book has 25 articles about the status and new directions in forensic genetics. Approximately half of the articles are invited reviews. and the remaining articles deal with new forensic genetic methods. The articles cover aspects such as sampling DNA evidence at the scene of a crime; DNA transfer when handling evidence material and how to avoid DNA contamination of items, laboratory, etc.; identification of body fluids and tissues with RNA; forensic microbiome analysis with molecular biology methods as a supplement to the examination of human DNA; forensic DNA phenotyping for predicting visible traits such as eye, hair, and skin colour; new ancestry informative DNA markers for estimating ethnic origin; new genetic genealogy methods for identifying distant relatives that cannot be identified with conventional forensic DNA typing; sensitive DNA methods, including single-cell DNA analysis and other highly specialised and sensitive methods to examine ancient DNA from unidentified victims of war; forensic animal genetics; genetics of visible traits in dogs; statistical tools for interpreting forensic DNA analyses, including the most used IT tools for forensic STR-typing and DNA sequencing; haploid markers (Ychromosome and mitochondria DNA); inference of ethnic origin; a comprehensive logical framework for the interpretation of forensic genetic DNA data; and an overview of the ethical aspects of modern