The importance of deoxyribonucleic acid (DNA) evidence in assisting either to prove the guilt of an accused person or otherwise altogether exclude him as a suspect is undisputable. The absence of a South African handbook focusing on the practical aspects relating to DNA for court purposes has for years been a shortcoming in this field. With this publication Meintjes-Van der Walt has aimed to produce “an accessible guide to lawyers and presiding officers who come across DNA evidence in practice”, and has as its main objective “to form a bridge between the science of DNA and the legal aspects of DNA evidence” (xiii).

The handbook can be roughly divided into two sections, with chapters 1 to 3 focusing on scientific aspects, while chapters 4 to 7 pertain to practical difficulties and evidential aspects relating to DNA that may arise in court. Chapter 1 contains a simple explanation of the uses of DNA profiling in criminal investigations as well as the biological principles of DNA. Chapter 2 provides practical guidelines on important pre-trial investigative procedures such as the taking of samples and ensuring the integrity of the chain of custody. The collection of samples is discussed with reference to section 37 of the Criminal Procedure Act 51 of 1977 as well as the Criminal Law (Forensic Procedures) Amendment Bill 2 of 2009 (now Act 6 of 2010, awaiting promulgation) (for a comprehensive discussion of Act 6 of 2010 see Meintjes-Van der Walt “A South African intelligence DNA database: panacea or panopticon?” 2011 SAJHR 496 and De Wet, Oosthuizen and Visser “DNA profiling and the law in South Africa” 2011 PER 197). This chapter concludes with a discussion on pre-trial disclosure and the author refers to information obtained by her during consultation on the disclosure policy of the SAPS forensic science laboratory. Chapter 3 deals with technical aspects of DNA profiling and explains the science of DNA extraction and quantification, laboratory controls, result analysis and interpretation of the laboratory report.

Chapter 4 provides guidelines for the presentation of evidence-in-chief as well as cross-examination of the expert DNA witness. It highlights potentially problematic issues (such as sufficiency and quality of the DNA sample, contamination of the sample, laboratory performance and interpretation of results) that may arise during the trial, and possible solutions are discussed to address these challenges. The calculation of random match probabilities is discussed in chapter 5. This is an important aspect, as a mere DNA match is of no probative value without a statistical interpretation. Meintjes-Van der Walt successfully explains the application of statistical methodology in terms that are easy to understand. She also deals authoritatively with well-known defence and prosecutor fallacies pertaining to DNA evidence as well as the value of the statistical occurrence rate of a DNA match as the only available evidence. Chapter 6 highlights the importance of DNA evidence in post-conviction exonerations. Useful guidelines gleaned from international best practice are provided in an attempt to strike a balance between the rule of finality and the rights of the innocently convicted person. In the last chapter a checklist is provided that will be of use to both the prosecution and defence in preparing to present or test DNA evidence. This chapter also gives a glimpse of possible future developments in forensic identification.

The book is well edited and only one mistake was noticed on xiv: “Phillips.” The handbook is equipped with a user-friendly table of contents as well as an index (xvii-xviii; 159-169). A glossary of terms provides easy reference to difficult and new definitions and increases the practical value of the publication (120-126). Inclusion of a comprehensive list of authorities (including internet sources) as well as the South African National Accreditation System Technical Guidelines for Forensic DNA Testing Laboratories will no doubt assist the busy practitioner who wants to undertake further research.
on the topic (139-157). The inclusion of colour diagrams is indicative of the care and precision applied in
the lay-out of the publication and also contributes to an easier understanding of the material (171-177).
Meintjes-Van der Walt not only succeeded in her aim of providing an accessible guide to lawyers
confronted by DNA evidence in practice but also extracted best practice examples from foreign
jurisdictions in respect of those areas of our law which still require development (105-106; 117-119).
The handbook has considerable practical value, as it would not only assist the prosecution to present
evidence of this nature in a meaningful way, but also strengthen the position of the defence to cross-
examine and test the evidence. It is anticipated that this publication will become indispensable to those
prosecutors, defence practitioners and presiding officers who deal with DNA evidence.

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