

**X4 – THE RISE OF THE IMPERFECTS**

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The occurrence of genetic anomalies in forensic casework can give rise to the speculation of a mixture or contamination. Even though these aberrant genetic patterns are fairly uncommon in the general population, the forensic community is aware of these patterns and their underlying genetic cause. Recently, the Los Angeles County Sheriff's Department – Scientific Services Bureau has encountered two cases involving triallelic patterns. In each of these cases, these patterns were exhibited in the forensic unknown semen samples and not in the oral reference samples. Due to the type of forensic unknown samples, a comparable reference sample may not be easily obtained. Therefore, armed with the knowledge of triallelic patterns, their source and case examples, confident interpretations can be made in these cases.