PROLOGUE

In the era of technology, we ideate every human on this earth has a vague idea of scientific revolution that took place in the late 80's. If not through literature, then certainly through media. It is very difficult to desist one-self from watching the suspense soaps like CSI, CID, Crime patrol, FBI files, Sherlock homes adventures, and so on. However, what seems to be exciting as portrayed by the fictional criminologists, in realism world, may not be so facile and over-whelming.

Crime scene is a battle field. Investigators fight to find clues. The core of any criminal investigation is to search and concentrate on the evidence that cannot lie. There cannot be any scope of subjectivity in the investigation. Each case has to be handled objectively without any presupposition of caste, color, creed or bubble gum flavor. True crime scene analysts, the police officials or forensic experts, would allow the physical evidence to speak for itself following the Law of Individuality and Law of Exchange. The exchange law formulated by Dr. Edmund Locard postulates that when two surfaces come in contact with each other they tend to exchange traces, tagged as "Trace Evidence". Post collection, preservation and transportation of physical evidence, the forensic investigation commences. The term "forensic investigation" means the application of science or technology in investigation and establishment of facts or evidence to be used in criminal justice or other legal proceedings. Such analysts who use science or technology/scientific techniques for analyzing the physical evidence for answering various questions of legal interest are called as forensic experts.

The scientific revolution that we chronicle has been widely heralded under the banner “DNA” (acronym of deoxyribonucleic acid) profiling. In the context of forensic science, forensic profiling is shorthand for a family of techniques commonly known as DNA profiling, DNA fingerprinting, DNA typing, DNA testing, or genetic testing. The technical names for the techniques used include MLP (Multi locus Probe); SLP (Single locus probe); STR (Short tandem repeats) and PCR Methods. DNA after being processed through various stages of development got the scientific status in late 1990's. Since then, it has been considered as "Golden Standard" in forensic science. It uses the trace evidence (lifted from the crime scene or otherwise) for comparison either with the suspect, known offenders, or victims. It had an edge over other existing techniques of investigation as it has been proved that chances of a person having same DNA is 1 in 6 million with only
exception in case of mono-zygotic twins. This is why DNA profiling in the recent years have become emblematic of a level of objectivity and is unmatched by any other mode of forensic investigation. How DNA attained the exemplary status has been exhaustively dealt with in the present work, highlighting how the DNA evidence status was lifted above and beyond the contestable status of other forms of expert and non-expert evidence. Also, we have tried to work its implication upon the criminal justice system and other legal proceedings. Of course, the concern had also been to highlight the defense strategies those may be used as a defensive mechanism against the DNA evidence by savvy defense lawyers. Further, it has been impressed that the credibility of DNA evidence largely rests upon fallible combination of technical, administrative and legal practices.

The forensic investigator is obviously not an advocate for a particular opinion, position or hypothesis. Even if employed by law enforcement or a particular agency, when acting as a forensic investigator, an individual must not develop a consciousness of enforcement. Law enforcement personnel, working in their capacity as police officers are responsible for presenting the facts and evidence of a case before the courts. Judges/Magistrates are responsible for determining fault-innocence or guilt. The responsibility of the Forensic investigator is to accurately recognize, identify, and individualize an item of evidence and provide clear and unambiguous report of what the evidence is, what it implies, and how it relates to the matter in hand. Bias on the part of forensic is one of the surest ways to have even excellent forensic opinion rejected as presentable in court or other legal proceedings. The research would also highlight the controversy regarding according of scientific status to the DNA evidence, its admissibility in the court of law, and whether DNA profiling impinges upon any of the social, legal or moral rights of the person profiled and whether the innovation has retained its scientific status when it was transferred to the domain of criminal investigation.

Critical analysis of "Scientific Evidence" vis-a-vis the non-expert forms of criminal evidence such as confessions and eye witness testimony has been the another area of study of this research. The judges often express skepticism about expert evidence and they do not readily yield legal authority to experts. May be, because they do not want the expert witness to usurp the traditional province of judges or they are actually not aware of this novel technology and its uses. Whatever the case may be, the extent to which such traditional limits should be maintained in the face of the extraordinary power ascribed to DNA evidence is also a matter of concern.
Progression of work revealed that the work would have been incomplete without studying the cons. One of the chilling examples to quote is the "Innocence project" which, unfolds the power of forensic experts and law enforcement personnel to devastate or destroy individual’s life. The only plausible reason we hypothesize is some believe that science is unarguable. But even then the question mark is not on the ability of the technique to generate the results but upon the errors that may creep while reading of profile either in isolation or using probability laws taking aid from data-banks. Gray area is the reading of the result which involves the human element that can err. Even more astounding is the recent findings given by the Scientists of Israel headed by Dr. Frumkin, founder of Nucleix, a company based in Tel Aviv who have demonstrated that artificial DNA can be engineered and fake DNA can be planted but has also shown the method to distinguish between the natural and the artificial DNA. For this reason, the researcher has attempted to underline a lesson that expert evidence (here specific reference to DNA profiling) cannot and doesn’t for that purpose determine the guilt or innocence, instead, it is its probative value when combined with other evidence of the case that assists the courts either to accept the prosecution’s allegations or to discard them. The exceptional credibility that has been assigned to DNA evidence does not exempt it from the judgments and contingencies that surround its use in criminal investigations.

Last but not the least; Science however powerful and accurate will only generate numerical or graphical results; it is the men who make meaning out of science, especially when the DNA profile is based on the results deduced by probability methods. Therefore, even though it is impossible to argue against science when the process is carried out correctly, it is always possible to argue against the implication of the results. It is always possible to find reasons why the result is given by the experiment. Thus it is always possible to argue against implication of science. Therefore, even though one cannot argue with the DNA profile when the test is performed correctly, but it is always possible to argue against the reading of the DNA profile and give alternative possibilities to why the result is given. But then:

"SHOULD LAW SIT LIMPLY WHILE THOSE WHO DEFY IT, GO SCOTT FREE; AND THOSE WHO SEEK ITS PROTECTION, LOSE HOPE’"

DATED: (PARMINDER KAUR)

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1 Jennison v/s Baker (1972) 1 All ER 997, 1006.