

Applications of DNA finger printing in medical biotechnology:

- 1) Genetic fingerprinting can be used in criminal forensic investigations. A very small quantity of DNA is reliable enough in identifying individuals involved in a crime. Similarly, DNA fingerprinting can and does exonerate innocent people of crimes—sometimes even crimes committed years ago.
- 2) DNA fingerprinting can also be used to identify a decomposing body.
- 3) DNA fingerprinting can answer the question of the relationship to another person quickly and accurately. In addition to adopted children finding their birth parents or settling paternity suits, DNA fingerprinting has been used to establish a relationship in cases of inheritance.
- 4) DNA fingerprinting serves several uses in medicine. One important instance is identifying good genetic matches for organ or marrow donation. Doctors are beginning to use DNA fingerprinting as a tool for designing personalized medical treatments for cancer patients. Moreover, the process has been used to ensure that a tissue sample has been correctly labeled with the patient's name.
- 5) In criminal investigations, the DNA fingerprint of a suspect's blood or other body material is compared to that of the evidence from the crime scene to see how closely they match. The technique can also be used to establish paternity.