Chapter V

Conclusion and Suggestion

A Thai population data base of STR loci has been established for CSF1PO, TPOX, TH01, F13A01, FESFPS, F13B, LPL and vWA. All systems contain a 4-bp repeat unit, and allele designation was according to the numbers of repeat units. Different alleles obtained by monoplex and multiplex PCR amplifications could be separated easily using denaturing polyacrylamide gel electrophoresis and detected by silver staining. This analytical procedure is simple, rapid, eliminating the use of radioactive labelling and can be implemented into most application-oriented laboratories at minimal cost.

The results also demonstrated that the genotyping of STR loci is a powerful DNA typing technique. These useful systems are CSF1PO, TPOX, TH01, F13A01, FESFPS, and vWA. The combination of these systems results in more powerful DNA typing and can be used as a battery for person identification and paternity test.

Other suggested validation studies include the mutation rate, true/false paternity testing, and the new polymorphic STR loci should be explored to obtain an STR battery with a power of exclusion of 0.999999.