The Use of Lectins in Forensic Science

REFERENCE: Tumosa CS: The use of lectins in forensic science; *Forensic Sci Rev* 1:67; 1989.

ABSTRACT: Lectins or receptor specific proteins have found a wide range of applications in biology and biochemistry as well as other life sciences. The original applications of these reagents in blood banking have been adapted to the unusual working conditions encountered by forensic scientists and lectins have been very useful in the analysis of blood and semen stains. First isolated as crude extracts from seeds, lectins are found in other plant parts as well and in a wide variety of invertebrate species. These reagents are now purified and characterized and have become versatile tools used to identify and group blood and other body fluids both in clinical settings and in the often contaminated stains found at crime scenes. Human blood group antigens, especially the ABH antigens, have been extensively studied using these reagents, and the results have been extended to non-human blood group systems. Other applications include species determination and characterization. A review of the literature shows many papers delineating novel uses of lectins in the area of forensic serology.

KEY WORDS: Blood groups, forensic serology, lectins, secretor.