

DNA FROM DIRTY CLOTHES

Robert Blackett

Arizona Dept of Public Safety, Tucson, AZ



A T-Shirt was found at the scene of a homicide, and STR DNA profiles of blood spatters on the shirt matched the victim. More importantly, DNA profiles were also obtained from several non-bloody inside areas of the shirt that matched one of six suspects.

PCR amplification now enables DNA typing of unstained areas of dirty clothing to determine the wearer. Suggested areas for sampling are skin contact areas; e.g., inside armpits and neck areas of shirts, inside waistbands of pants and shorts, sweatbands of baseball caps, etc.

Swabbing has been found to be a better collection technique than cutting, giving near-complete profiles in the majority of cases. Two swabs are typically wet and used together for sampling. One is later analyzed and the other is reserved. Profiles obtained are usually weak and may be mixed with traces of non-matching DNA. Several case examples will be presented.