

## Relevant Literature on Mixture Interpretation

### General Information

Gill, P. (2002) Role of short tandem repeat DNA in forensic casework in the UK--past, present, and future perspectives. *BioTechniques* 32(2): 366-385.

**Gill, P., Brenner, C.H., Buckleton, J.S., Carracedo, A., Krawczak, M., Mayr, W.R., Morling, N., Prinz, M., Schneider, P.M., Weir, B.S. (2006) DNA commission of the International Society of Forensic Genetics: Recommendations on the interpretation of mixtures. *Forensic Sci. Int.* 160: 90-101.**

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Torres, Y., Flores, I., Prieto, V., Lopez-Soto, M., Farfan, M.J., Carracedo, A., Sanz, P. (2003) DNA mixtures in forensic casework: a 4-year retrospective study. *Forensic Sci. Int.* 134: 180-186.

### Mixture Detection and Component Profile Deconvolution

**Clayton, T.M., Whitaker, J.P., Sparkes, R., Gill, P. (1998) Analysis and interpretation of mixed forensic stains using DNA STR profiling. *Forensic Sci. Int.* 91: 55-70.**

Cowell, R.G., Lauritzen, S.L., Mortera, J. (2007) Identification and separation of DNA mixtures using peak area information. *Forensic Sci. Int.* 166(1):28-34

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Evett, I.W., Buffery, C., Willott, G., Stoney, D. (1991) A guide to interpreting single locus profiles of DNA mixtures in forensic cases. *J. Forensic Sci. Soc.* 31: 41-47.

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Evett, I.W., Foreman, L.A., Lambert, J.A., Emes, A. (1998) Using a tree diagram to interpret a mixed DNA profile. *J. Forensic Sci.* 43(3): 472-476.

Gill, P., Sparkes, R.L., Pinchin, R., Clayton, T.M., Whitaker, J.P., Buckleton, J.S. (1998) Interpreting simple STR mixtures using allelic peak areas. *Forensic Sci. Int.* 91: 41-53.

Shrestha, S., Strathdee, S.A., Broman, K.W., Smith, M.W. (2006) Unknown biological mixtures evaluation using STR analytical quantification. *Electrophoresis* 27: 409-415.

Tomsey CS, Kurtz M, Flowers B, Fumea J, Giles B, Kucherer S. (2001) Case work guidelines and interpretation of short tandem repeat complex mixture analysis. *Croatian Med. J.* 42: 276-280.

### Designating True Alleles versus Artifacts

Gill, P., Sparkes, R., Kimpton, C. (1997) Development of guidelines to designate alleles using an STR multiplex system. *Forensic Sci. Int.* 89: 185-197.

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Meldgaard, M. and Morling, N. (1997) Detection and quantitative characterization of artificial extra peaks following polymerase chain reaction amplification of 14 short tandem repeat systems used in forensic investigations. *Electrophoresis* 18: 1928-1935.

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### Expert System Software Approaches

Bill, M., Gill, P., Curran, J., Clayton, T., Pinchin, R., Healy, M., and Buckleton, J. (2005) PENDULUM—a guideline-based approach to the interpretation of STR mixtures. *Forensic Sci. Int.* 148: 181-189.

Mortera, J., Dawid, A.P., Lauritzen, S.L. (2003) Probabilistic expert system for DNA mixture profiling. *Theor. Popul. Biol.* 63: 191-205.

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Wang, T., Xue, N., Birdwell, J.D. (2006) Least-squares deconvolution: a framework for interpreting short tandem repeat mixtures. *J. Forensic Sci.* 51(6): 1284-1297.

### Interlaboratory Studies on Mixture Interpretation

Duewer, D.L., Kline, M.C., Redman, J.W., Newall, P.J., Reeder, D.J. (2001) NIST mixed stain studies #1 and #2: interlaboratory comparison of DNA quantification practice and short tandem repeat multiplex performance with multiple-source samples. *J. Forensic Sci.* 46(5): 1199-1210.

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### Statistical Calculations and Issues

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### Defense Attacks on Mixture Interpretation

- Gilder, J.R., Doom, T.E., Inman, K., Krane, D.E. (2007) Run-specific limits of detection and quantitation for STR-based DNA testing. *J. Forensic Sci.* 52(1): 97-101.
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### Y-STRs Can Benefit Some Mixture Samples Compared to Autosomal STRs

- Cerri N, Ricci U, Sani I, Verzeletti A, De Ferrari F. (2003) Mixed stains from sexual assault cases: autosomal or Y-chromosome short tandem repeats? *Croatian Med. J.* 44: 289-292.
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### Y-STR Mixture and Statistical Issues

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