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## Profiling and policing

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Cell lines used in many laboratories are often not what they are claimed to be, resulting in misleading research articles. A well-characterized case of cross-contamination is the widely used human cancer cell line called HeLa. In the Early Edition of the *Proceedings of the National Academy of Sciences*, Masters *et al.* describe the use of forensic techniques to expose culprit samples. Short tandem repeat (STR) profiling is a simple PCR-based technique that generates results in the form of a standard numerical code for lengths of polymorphic loci. Masters *et al.* analysed 253 human cell lines, collected from international cell banks and cancer research institutes, to demonstrate the feasibility of wide-scale STR profiling to detect cross-contamination. The authors suggest that STR profiling (at a cost of only \$200 per cell line) could be used to create an international reference standard for human cell lines and they propose that a policy of 'authentication prior to publication' would diminish scientific misrepresentation.

## References

1. Cell contamination leads to inaccurate data: we must take action now
2. Widespread intraspecies cross-contamination of human tumor cell lines arising at source.
3. *Proceedings of the National Academy of Sciences* , [<http://www.pnas.org>]
4. Short tandem repeat profiling provides an international reference standard for human cell lines, [<http://www.pnas.org/cgi/doi/10.1073/pnas.121616198>]
5. A highly discriminating octoplex short tandem repeat polymerase chain reaction system suitable for human individual identification.