This response was submitted to the consultation held by the Nuffield Council on Bioethics on *The Forensic use of bioinformation: ethical issues* between November 2006 and January 2007. The views expressed are solely those of the respondent(s) and not those of the Council.

Mike Redmayne

As for the issue of presenting DNA evidence, and especially match probabilities, to juries, that is something I have written about in the past, but have not given so much thought to recently. The current method of presenting DNA evidence (as set out in the Science and Technology Committee report) is reasonable, but I wonder if it does enough to guide jurors away from the prosecutor's fallacy; in the context of database searches, the issue is quite pressing. Given the current strength of DNA evidence, it is difficult to know what to do: the nice Doheny approach is no longer useful. Perhaps the best we can do is in addition some sort of narrative explanation, drawing on the Turnbull eyewitness identification warning, from the judge: thinking off the top of my head, something like 'the DNA is very strong evidence against D, but it is no more than that, and it needs to be seen in the context of all of the other evidence in the case. Sometimes DNA matches with innocent people do occur by chance (refer to that case where the 1 in 37 million Match probability matched an innocent person on the database). You need to consider whether the prosecution have produced enough evidence to make you sure that this is not a case of such a coincidence occurring. If there is evidence in D's favour (eg alibi, D's testimony), you need to consider very carefully whether the DNA evidence is sufficiently strong to outweigh that evidence and make you sure of guilt in spite of it.' I also suspect we should say something about the possibility of error, contamination etc, thought that is more controversial. There is also the difficult question of whether we should alert the jury to the fact that a match was gained through the database: I don't think that can be done without defence agreement, but it's something I think would generally be in D's favour as it will make the possibility of random match more vivid to the jury, and would allow the judge to expand the instructions by perhaps saying how often innocent 'cold' hits are expected on the database.

I don't think we can realistically do much better than that. Further quantification of evidence is unlikely to be helpful, but if the defence really want to do what was done in Adams, I don't think we should prevent them from doing so: it's their decision.

I hope these quick thoughts are of some help,

Best wishes,

Mike Redmayne