PREDICATE QUESTIONS FOR DNA EXPERT DNA PCR TYPING

##### February 2003

1. What is your name?

2. What is your occupation?

3. Who are you employed by?

4. What services does provide?

5. How long have you been employed by ?

6. What are your duties and responsibilities?

7. Would you describe your educational background?

(a) What schools have you attended?

(b) What degree(s) have you received?

8. Did your formal education include the study of DNA?

(a) Did that education include hands-on work with DNA testing techniques?

9. Have you performed research in the area of DNA or DNA testing?

10. Prior to your employment at , please describe any other positions you have held.

(a) Did you perform DNA typing in those previous positions?

11. Are you a member of any professional societies or organizations?

(a) What role do professional societies and organizations play in the science of DNA?

(b) What societies or organizations do you belong to?

(c) Do you attend their meetings?

(d) Are you asked to deliver or present your research at those meetings?

12. Have you written any papers or articles?

(a) Have they been published in the scientific literature?

(b) Are papers and articles important in science?

(1) Why?

13. What is "peer review?"

(a) What role does peer review play in science?

(b) Have your papers or articles been peer reviewed before they were published?

(c) Are you asked to peer review the scientific publications of others?

14. Do you regularly read the scientific literature in the area of DNA?

(a) Why?

(b) What journals or other scientific publications do you regularly read?

15. Have you testified before today as an expert in DNA testing?

(a) Approximately how many times?

(b) In what courts and states?

16. What is DNA?

17. When was it discovered?

18. Why is DNA important?

19. Where is DNA found in humans?

20. Is the DNA in all people the same?

(a) What about identical twins?

21. Are there methods to type DNA from different people?

(a) When were they developed?

(b) What do they do?

(c) How are they different from one another?

(d) Have you used them before?

(e) How are they different from methods that have been used before DNA was discovered?

22. What is the PCR method of DNA typing?

23. Is the PCR form of DNA typing used in fields other than criminal cases?

(a) What are those fields?

(b) Do they include in the hospital?

(1) To diagnose diseases?

(2) To transplant organs and tissue?

(3) To save lives?

(c) Do they include in saving endangered animals?

(d) Do they include in identifying the remains of American war dead?

24. Is the PCR method used around the world?

25. Very briefly, how does the PCR method work?

26. Are controls used in the testing process?

(a) What is a control?

(b) Why are they important?

(c) What if the controls don't work properly?

27. How do you read the results of a PCR test?

28. What types of results can you get from a PCR test?

(a) What is "no result?"

(b) What is an "inconclusive" result?

(c) What is an "exclusion?"

(d) What is a "match?"

29. Can anything make DNA in a sample change from one type to another?

(a) Can DNA in a sample get old or die?

(b) Is there anything about the testing process that can change the DNA type in a sample?

30. What is "contamination?"

(a) What steps do you take to deal with the possibility of contamination?

(b) What role do controls play in determining whether any contamination has occurred?

(c) Are there additional controls which are used specifically for PCR testing?

31. Do you and your laboratory undergo proficiency testing?

(a) What is proficiency testing?

(b) How often are you tested?

(c) What are the results of your proficiency testing?

32. What licenses does your laboratory hold?

33. What certifications or accreditation does your laboratory hold?

34. Does your laboratory follow the standards of any organizations?

(a) What is the "DNA Advisory Board?"

35. Does your laboratory perform DNA typing for both prosecutors and defendants?

(a) Are charges ever dismissed against defendants as a result of your DNA test results?

(b) Are inmates ever freed from prison as a result of your DNA test results?

36. What is quality assurance?

(a) Are quality assurance programs in effect in your laboratory?

(b) Please describe those programs.

37. When your laboratory receives cases for DNA testing, what steps are taken to ensure the integrity of the evidence?

(a) What is "chain of custody?"

(b) How do you make sure that a proper chain of custody is maintained?

38. What are protocols?

(a) Does your laboratory have written protocols?

(b) What do those protocols require?

(c) Do those protocols cover every step from receipt of evidence to writing the reports?

(d) Have those protocols been approved by any agency or organization?

39. What are population frequencies?

(a) Why are they important in DNA typing?

40. What is your education and training in population frequencies?

(a) Please describe your experience in the use of frequencies?

(b) Have you used them in DNA cases before?

(c) Have you testified before as an expert in the use of population frequencies in court?

41. Have population frequencies been used even before DNA typing?

42. How are these estimates calculated?

43. Do you take any steps to ensure that your estimates are accurate?

(a) What do you mean when you say "conservative" steps are taken in the calculation of frequency estimates?

44. Why do you calculate estimates for major races?

45. Did you receive evidence in the case of v. ?

(a) When did you receive that evidence?

(b) What was included in that evidence?

(c) What was done with that evidence when it was received?

46. Was each entire sample used up in the testing process?

(a) Why not?

(b) What is a "future test sample?"

(c) Why do you save a portion of the evidence?

47. Which samples were tested by you in this case?

48. Were results obtained?

49. Who decides what the results are?

(a) Must both of you agree?

(b) Did you both agree on all the results in this case?

50. Did all the controls show the tests were performed properly or not?

51. What were the results in this case?

52. Did you calculate estimates for the rarity of the matches you found?

(a) What are those estimates?

(b) What do those estimates mean?

53. What did you do with the evidence after your testing was completed?

54. Did you provide all of your reports and notes to the defense in this case?