



In This Issue

- Non-Paternity, Non-Maternity and Non-Malevolence
- Annual Meeting Highlights
- Great Resources

Do you have an interesting case or question you would like to share. Email us at nikkib@aabb.org

Non-Paternity, Non-Maternity and Non-Malevolence

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Introduction

The results of a private case of questionable paternity presented ethical problems for the laboratory. The details of the case are as follows.

History

A retired prominent public official (AF) had supported a male child (C) until the child was grown. The child had been born in Korea, and said he was raised by his mother (M) in the U.S. in a city distant from AF. During AF's estate planning, however, AF questioned his paternity of C and asked for genetic tests. AF was African-American and M was Korean. AF, the M and C were examined at 18 STR loci: TPOX, TH01, vWA, D16S539, D7S820, D13S317, D5S818, F13A01, F13B, FESFPS, LPL, CSF1PO, PentaE, D18S51, D21S11, D3S1358, FGA and D8S1179.

Results and Follow-Up

Test results revealed 8 genetic inconsistencies between AF and C. Surprisingly, there were 7 genetic inconsistencies between M and C. In addition, the mother and child differed in mono-allelic types ("apparent opposite zygosity") at 3 other loci. A misidentification error was considered possible so buccal samples were collected anew from all three parties. The second set of results was identical to the first. Therefore, the laboratory excluded AF from paternity of C, but after considering bio-ethical principles, no mention was made of the findings of non-maternity. All the genetic test results were reported, however, because by pretest agreement, reports were to be sent to all parties.

After receiving the results, C wrote a letter asking: "What do the terms and codes mean?"; "What is the accuracy of the tests?"; "Is the laboratory accredited?"; "Did the laboratory

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request second samples because of contamination?”

In response, the laboratory explained the locus and allele names, the near certainty of concluding non-paternity from the multiple genetic inconsistencies, the adherence to standards by the lab and the meaning of AABB accreditation. The reason given for the laboratory's request for a second set of specimens was not a contamination problem, but to verify the first results.

Discussion

Primum non nocere! First do no harm has been a medical tenet for centuries. Modern bio-ethics has embraced the similar principle of non-malevolence. For example, when geneticists and counselors consider that genetic testing may reveal non-paternity, they inform the mother of that possibility before a family study is undertaken – “...prevent disclosure of... non-paternity by telling the woman alone, before testing, that the test could reveal non-paternity...”¹. Subsequently, genetics counselors obtain informed consent for testing from both parents. A second example applies to clinical trials, where bio-ethicists demand protection of experimental subjects from harmful, unexpected test consequences. The World Health Organization states: “If necessary, to protect vulnerable parties, results may be withheld if not relevant to health, such as accidental findings of non-paternity¹.” This same principle should apply to unexpected findings of non-maternity as in the case presented here – “...it is better not to provide the information to anyone than to risk harm...”¹

The presented case raises unanswered questions: Why did the non-mother submit to genetic tests? Since no counseling is given before parentage testing, she may not have understood how the tests work. If she understood the test principles, did she intend to reveal the truth of her non-maternity?

References

1. World Health Organization. Wertz DC et al. Review of ethical issues in medical genetics, WHO/HGN/ETH/00.4(c) 2003 p. 54.

AABB Editorial Comment: Dr. Wenk presents a dilemma that faces all laboratories performing paternity testing; that is, what to do with an unexpected finding of no relationship? One method of assessing these cases is to look at who your client is. If the test is ordered by a child support agency (IV-D), immigration service or a court, the laboratory must also consider the possibility of fraud. Fraudulent submissions leading to apparent unexpected findings of no relationship have been observed by testing laboratories. These include bringing in someone else's child in an attempt to obtain welfare money, the alleged father who brings in a known child with a different mother than the tested mother, immigration testing and inadvertent actions such as a grandmother who is a guardian mistakenly submitting herself as the biological mother. Recollection to confirm the identity/chain of custody, as Dr. Wenk did, would be an appropriate action. However, if the laboratory confirms the findings the decision to withhold the unexpected finding of no relationship should be made carefully. In a private case (no court or other agency involved), contacting the mother independent of the other tested parties is one approach. This is an approach that is commonly used in the medical genetics setting. Of course this raises another question, if the mother tells you she is not the biological mother and not to tell anyone else, what should you do? If you do not tell, you are doing no harm to the mother, but what about the child and father? Are they harmed by not revealing this information? There is no easy answer to these questions, but doing the least harm to the minor child is probably most important.



ANNUAL MEETING & TXPO 2006

Miami Beach, Florida ■ October 21-24



Annual Meeting Registration is

NOW OPEN

Online registration for the AABB Annual Meeting and TXPO 2006 is now open. Visit the [AABB Web site](#) to register for this year's exciting educational event.

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ANNUAL MEETING HIGHLIGHTS

Session: Relationship Testing SIG I:

Date: Saturday, October 21, 2006 10:30 am – 12:00 pm

Objectives:

- ✓ Understand the AABB relationship testing laboratory accreditation process
- ✓ Learn the current issues relating to standards for relationship testing
- ✓ Comprehend the issues and lessons learned through the proficiency testing program

Event Description

The speakers will focus on the summary of information obtained through the annual reports submitted by the AABB accredited relationship testing laboratories. A summary of the results submitted by the participants of the proficiency testing program will be discussed.

Session: Relationship Testing SIG II:

Date: Saturday, October 21, 2006 2:00 pm – 5:30 pm

Relationship Testing for Identification of Victims After a Mass Disaster

Objectives:

- ✓ Understand the issues involved in identification of victims after a mass disaster
- ✓ Learn details about the best methods for extraction of DNA from degraded samples from natural disaster victims
- ✓ Discover how to perform relationship index calculations using familial reference samples

Event Description

Participants will learn the methodologies involved in the identification of victims of natural disasters by DNA testing of close relatives. The topics will include discussion of sample collection, biochemical and mathematical complexities. The panel of speakers has first hand knowledge in performing victim identification using DNA testing.

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Session: Forensic Sciences

Date: Sunday, October 22, 2006 8:30 am – 10:00 am

Objectives:

- ✓ Learn current information regarding the status of forensic DNA testing capabilities
- ✓ Comprehend information on new technologies applicable to forensic DNA testing.
- ✓ Review challenges posed for DNA-based identification in mass disasters

Event Description:

The session will provide an update on the field of identity testing through DNA analysis. Included among the presentations will be the development and application of new technologies enhancing the efficacy of DNA testing.

Session: What's new in HLA Typing, Antibody Identification and Engraftment Monitoring

Date: Sunday, October 22, 2006 2:00 pm – 5:30 pm

Objectives:

- ✓ Learn how histocompatibility antigens are used as targets for immunotherapy and their role in allogeneic stem cell transplantation
- ✓ Explore how current HLA typing and antibody identification procedures are used to assist in organ allocation and to study transplantation outcomes
- ✓ Discover how testing for polymorphisms in other genetic systems are used for disease risk assessment, identification, and relationship analysis

Event Description:

Experienced speakers discuss the latest findings in the areas of HLA antigen and antibody testing as they relate to donor/recipient matching. They will also explore testing for polymorphisms in genetic markers as they relate to disease risk assessment, identification, and relationship analysis.



GREAT RESOURCES

Featured Publication

The AABB has put forth a great resource to determine whether a process/procedure meets the Relationship Standards.

AABB Guidance for Standards for Relationship Testing Laboratories- 7th Edition

(Member price-\$30.00; Non-Member price -\$35.00)

Got a question about the AABB Logo?

AABB logos, which include the AABB Accredited logo and the association logo and tagline, are the intellectual property of AABB. Maintaining logo integrity preserves the strength of AABB's identity.

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Should you have information about our logo's misuse, please email us at marketing@aabb.org.

Facility Guide to AABB Assessments

A new resource is available for AABB Institutional Members to use in preparation for their AABB assessments. The **Facility Guide to AABB Assessments** was developed by the Education Advisory Subcommittee of the Accreditation Program Committee, and provides user-friendly information on such topics as:

- **History of the accreditation program**
- **Overview of the accreditation process**
- **Preparation for an accreditation event**
- **Managing the onsite assessment**
- **Responding to nonconformances**
- **Staying current with accreditation requirements**

New members, as well as those who have been previously accredited, will find the guidance, directions and suggestions found in the *Guide* helpful in achieving and maintaining AABB accreditation. The *Guide* can be found on the AABB Web site under: www.aabb.org > **Members Area** > **Accreditation** > **Assessment Guide**

Did you know ?

- 1) Questions encountered during an onsite assessment can be addressed immediately by calling 301.215.6492.
- 2) Additional questions or uncertainties regarding any standard can be submitted to the Relationship Testing Accreditation Program Unit for review as a topic for the newsletter and/or educational topic at the National AABB Meeting. Forward topic suggestions to nkkib@aabb.org

WANTED

Assessors

Have you ever considered becoming an assessor? The AABB Relationship Testing Program is looking for assessors. Please consider becoming one.

The requirements for an assessor are as follows:

- Must hold a minimum of a bachelor's degree.
- Must be an active AABB individual member.
- Must possess the appropriate experience and training.
- Must agree to the defined commitments.
- Must possess defined attributes.
- Must agree to the defined continuing education and competence requirements.

New assessor training is held at the AABB Annual Meeting and at Regional Workshops offered during the year. For a complete workshop schedule and details on the requirements/qualifications contact Kim Charity at kcharity@aabb.org or visit http://www.aabb.org/Content/Accreditation/Become_an_Assessor/becomeassess.htm

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Are you currently an assessor? Would you like to be involved in planning the AABB Assessor Day Relationship Testing breakout session? Would you like to review corrective action plans for process non-conformances? Would you like to be involved in the newsletter? If these issues are of interest to you, the Relationship Testing Accreditation Program Unit would like to have you as a member.

Are you currently an AABB Member? Would you like to be involved in creating and revising the Relationship Testing Standards? Would you like to review the requests for variance from the Standards? Would you like to be involved in creating and revising the Guidance for the Standards? If these issues are of interest to you, the Relationship Testing Standards Program Unit would like to have you as a member.

Please contact Pam Lubel at the AABB National Office at plubel@aabb.org.

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