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

NEW AND EXCITING CHANGES AT THE AABB

The AABB National Office and the Relationship Testing Accreditation Program Unit (RTAPU) recognizes that resources are becoming constrained in today's economy and because of that, sending personnel to outside meetings has become a hardship for many laboratories.

The RTAPU in conjunction with the AABB Professional Development department have come up with what they hope is a solution to this problem. The AABB will now offer new educational programs throughout the year rather than the two sessions that were offered at the AABB Annual Meeting.

This will enable laboratories, which could only afford to send a small number of employees to educational sessions outside of their facility, to bring educational programs into their facilities for all RT staff.

The new educational programs will be offered in both audio conference and webinar formats. This will allow many more facilities to take advantage of the superior educational opportunities offered by the AABB. The content of these new audio conferences and webinars will be entirely for today's relationship testing laboratories and their needs.

The RTAPU believes that the relationship testing community will be better served by these educational offerings during the entire year in lieu of the sessions at the AABB Annual Meeting. Our hope is that this new format will permit more people and more facilities to take advantage of our continuing education opportunities.

As the audio conferences and webinars are scheduled we will ensure that the information is shared in with the entire community so that many of you will have the opportunity to take advantage of these new and exciting educational offerings.

ASHI

Discontinues Accreditation

“The ASHI Board of Directors has voted to discontinue ASHI accreditation for Parentage Testing. The number of laboratories using ASHI for this Area of Accreditation (4 – 2 in the US and 2 outside the US) has become too small to justify the effort and expense needed to provide high-quality inspections. The laboratories were referred to the AABB for accreditation in this specialty. ASHI accreditation for Parentage Testing will expire when each lab’s current certificate expires.”

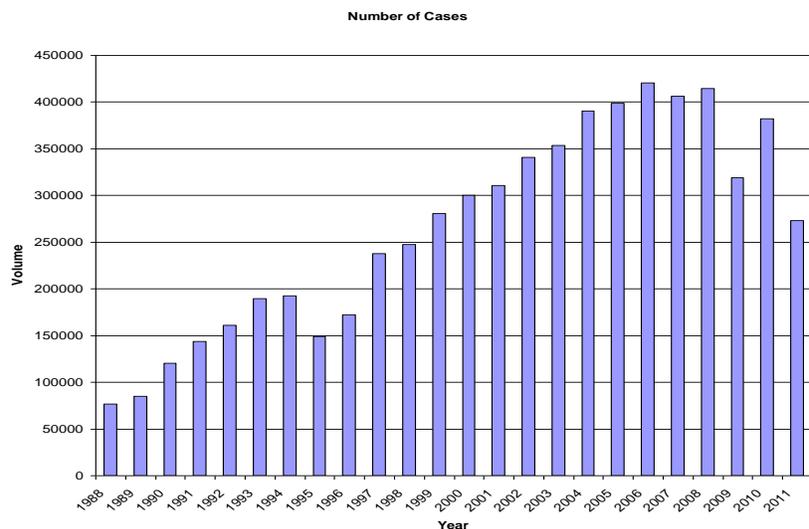
Annual Report for 2011

The annual report was presented last October. For 2011 only 25 laboratories participated, two less than last year. The annual report has been an important source of information and commentary on issues in paternity testing, used by authors, legislature and other individuals. In 2011 the participating laboratories reported 286,807 cases, both meeting AABB standards and not meeting standards (non-legal).

The AABB Relationship
Testing Annual Report
Summary

To obtain a FREE copy
JUST CLICK:

<http://www.aabb.org/sa/facilities/Pages/RTestAccrFac.aspx>



There were 717,985 samples collected, 99.43% of which were buccal swabs. Other samples submitted included blood tubes, blood spots, FTA paper, amniotic fluid, CVS, bone, hair, teeth, and others.

**Available
Now!**

**10th Edition Standards
for Relationship
Testing Laboratories**

*The effective date January 1,
2012.*

In Combination with :

**10th Edition of
Guidance for
Standards for
Relationship Testing
Laboratories**

*The Guidance to the Standards
for Relationship Testing
Laboratories is contained on a
compact disc included in the
back of this edition of RT
Standards.*

****Copies are available
for purchase. Visit the
AABB Bookstore at
www.aabb.org**

The overall exclusion rate for the testing was 24.97%, and ranged from 5.67% to 29.74% depending on the laboratory. When broken down by “legal” versus “non-legal” (no chain of custody) the exclusion rates are 15.07% and 19.71% respectively. For mutation calculation 83% of the laboratories use AABB mutation tables. The most popular method for calculating a mutation likelihood ratio remains the mutation rate divide by the average probability of exclusion (63%), followed by Brenner’s method (37%). For a discussion of mutation calculations see the appendices of the Guidance for Relationship Testing Laboratories, which now comes as a CD at the back of the standards (see Great Resources section below).

Calculation Challenges

The CAP/AABB Parentage testing proficiency tests paper challenges were reviewed at the annual meeting. Concern was expressed that many laboratories did not obtain the correct answer. Methods of calculating the correct answer were discussed as well as methods for educating laboratories trying to calculate complex relationships. Calculations may be part of future educational opportunities.

Expanded CODIS Core Loci Kits in Relationship Testing

Most relationship testing laboratories use 16 system kits from Promega Corporation or ABI/Life Technologies (Powerplex® 16 and Identifiler® respectively). In response to the planned expansion of CODIS Core Loci, these two STR kit manufacturers have developed new multiplex kits which amplify an amazing 24 loci.

Briefly discussing these new kits, PowerPlex® Fusion (Promega) and GlobalFiler™ (ABI/Life Technologies) both cover the CODIS 13 loci plus D2S1338, D19S433, D1S1656, D2S441, D10S1248, D12S391, DYS391, D22S1045 and Amelogenin]. In addition PowerPlex® Fusion adds Penta D and Penta E. while GlobalFiler™ adds SE33, and the Y indel gender marker.

Both kits reduce the amplification time to less than two hours. They both have amplified products less than 500 bases with ABI claiming that ten of their systems are sizes are less than 220 bp (“miniSTR” range). Nonetheless, analyzing all these

IF YOU MISSED THE MEETING IN 2012 YOU CAN STILL ORDER HANDOUTS OR STREAMING AUDIO WITH POWERPOINT SLIDES OF ALL THE SESSIONS HELD DURING THE 2012 ANNUAL MEETING BY VISITING THE AABB LIVE LEARNING CENTER JUST CLICK:**

<http://www.softconference.com/aabb/>

****CONTENT FROM 2009- 2012 SESSIONS ARE STILL AVAILABLE**

systems can have shortcomings for the laboratory. For example, GlobalFiler™ uses six dyes and will require upgrades to the collection software for the 3130 and 3730 platforms as well as use of GeneMapper® ID-X v1.4 analysis software. PowerPlex® Fusion, on the other hand, utilizes five dyes and does not require any instrument or software upgrades.

Some of the new loci have very beneficial characteristics while others may be less useful for the typical relationship testing laboratory: SE33 and D1S1656 are highly polymorphic, and D10S1248 and D22S1045 have relatively low mutation rates which are desirable in kinship analysis. SE33 has a high mutation rate, which make it less desirable for relationship testing. DYS391 also cannot be used for testing which involve female participants.

While no one will deny that there is added statistical advantage of using six to eight more systems, studies have shown that far fewer systems provide statistically reliable paternity tests, particularly when the mother is included in the testing. This additional testing does create issues for the laboratory such as a higher chance of having a system with a mutation, and the additional loci will increase the electropherogram review time.

For extended relationship testing such as secondary relationships and family reconstructions, these additional systems will be invaluable. It will also be highly useful for parentage tests (usually involving only one parent) in which a mutation has reduced the combined relationship index below an acceptable minimum threshold. For many labs, it may be prudent to reserve the use these 24 loci kits for these special situations while using other kits for the standard parentage tests.

In considering whether to use or switch to the newer kits, the individual relationship testing laboratory will ultimately have to weigh the benefits of the added statistical power afforded by the additional systems against the costs of additional analysis / review time, higher likelihood of systems with mutations, and potential increased CE run times / software upgrades. Having the option of using the new 24 loci kits either as a stand-alone default kit or as a reserve kit for additional systems adds options for laboratories and benefits the relationship testing field in general.

GREAT RESOURCES

- ✚ Standards for Relationship Testing Laboratories for 11th Edition will be available in October 2013. The publication will again contain a CD of the Guidance for Standards for Relationship Testing Laboratories, 11th Edition as well as a cross walk to identify the changes from the previous edition.
- ✚ You can obtain a list of Accredited Relationship Testing Laboratories at the following link:
<http://www.aabb.org/sa/facilities/Pages/RTestAccrFac.aspx>
- ✚ The AABB Career Link is a good way to bring together great job opportunities and great candidates. To find out more information visit the following link:
<http://www.aabb.org/development/careerlink/Pages/default.aspx>

Misleading Claims of Accreditation and Logo Misuse

With the explosion of advertising on the internet, there has been increasing misuse of AABB's trademarked logos and misleading claims of AABB accreditation. We are renewing our efforts to stop such practices and are actively searching out these organizations so that we can address this problem on a more global scale. These efforts benefit accredited laboratories by preserving the strong value of AABB accreditation and by ensuring that customer attention is focused on laboratories that actually are accredited. Our facilities work hard to achieve and maintain accreditation and deserve the maximum benefit of that accreditation. Increased vigilance will also benefit laboratories' customers by ensuring that they get the accredited-laboratory test that they have paid for. You can aid these efforts by bringing to our attention instances of logo misuse or misleading statements regarding accreditation. Please advise AABB's Accreditation Department (accreditation@aabb.org) by providing the offending Web site and briefly describing the issue. It would be particularly helpful if you copy and email the actual link from your browser's address bar, as some offending organizations maintain multiple Web sites. The AABB Trademark Usage Guideline can found on the AABB Web site under About the AABB/Governance and Policies.

<http://www.aabb.org/about/governance/Pages/default.aspx>

WANTED

RTAPU or RTSPU Member

2012-2013 RTAPU Members

George Riley, MT(ASCP) Chair

Marisol De Castro Reyes, MD
James Fuller, PhD
David Ku, MD
George Maha, JD, PhD
Lloyd Osborne, PhD

2012-2013 RTSPU Members

Mary Mount, MT(ASCP)
Chair

Michael L. Baird, PhD
Debra Davis, PhD
Susan Greenspoon, PhD
Dara Hofman, Esq
Donna Housley, PhD
Zahra Mehdizadeh Kashi, PhD
George Maha, JD, PhD
Neils Morling, MD, DSc
Meghan Nemeth, JD
Marilyn Pollack, PhD
Jane Pritchard, MS, MT(ASCP)
Marco Scarpetta, PhD
Larry Talbott

- ❖ Are you interested in ensuring that assessment/audit procedures are in consistent with AABB policies established by the AABB Accreditation Program Committee?
- ❖ Are you interested in working with U.S. Citizenship and Immigration Service and/or the Dept. of State as it relates to RT?

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 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.

To get involved, please contact Nikki Bass at the AABB National Office at nikkib@aabb.org.

Articles

Do you have an interesting case or question you would like to share through this newsletter? Or is there a topic or issue you would like us to write about? Email us at nikkib@aabb.org

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