

Scientific Analysis on DNA Analysis Methods (SWGDM) January 2016 Report

January 12-14, 2016

Fredericksburg, Virginia

I. Agenda:

Please see Attachment 1.

II. Meeting Synopsis:

Tuesday, January 12, 2016

The SWGDAM Chair, Mr. Anthony Onorato, introduced himself and the attendees introduced themselves. The SWGDAM Chair announced the formation of a Committee of Detail as a result of the number of inquiries that had been generated at the CODIS Conference on the reinterpretation/comparison of DNA profiles that had been generated by typing kits no longer in use in the laboratory and thus, DNA analysts were not proficiency tested on such kits. Rather than assign these issues to the Quality Assurance (QA) Committee which is currently focused on the revision of the Quality Assurance Standards (QAS), the Chair has empaneled a Committee of Detail to address the following issues:

- (1) Propose recommendations to the QA Committee in the form of additions to SWGDAM's QAS Clarification Document to provide guidance on how NDIS participating laboratories must operate to appropriately handle comparisons of new data to historical data in accordance with the current QAS.
- (2) Propose recommendations to the QA Committee in the form of changes to the current QAS to further clarify what constitutes reinterpretation of historical data and the changes necessary for further ensuring that all such reinterpretations and/or comparisons of historical data to new data are performed appropriately and reproducibly by competent scientists within NDIS participating laboratories.

The Chair expects these issues to be clarified by the July 2016 meeting.

The SWGDAM Chair reviewed the agenda and noted that the meetings for 2016 would be focused on revisions to the QAS. The SWGDAM Chair explained that Tuesday

would be devoted to a review of specific Standards and the comments received from the membership and invited guests.

Technical Session

The Chair and members of the QA Committee (Jocelyn Carlson, Amy McGuckian, Eugene Lien, Elizabeth Morris and Clark Jaw) led the discussions on Standards 5, 8, 9, 13, 16 and 17.

Wednesday, January 13, 2016

Ms. Amber Carr, Chair of the SWGDAM SAFER SAK Processing Working Group introduced and reviewed the draft document to recommend best practices for the processing of sexual assault evidence kits. Ms. Carr explained that they would be finalizing the document before sending it out to the membership and invited guests for a technical review.

Following the review of the draft document, the following Committees and Working Groups met for the remainder of the day: Autosomal STR, CODIS, Enhanced Detection Methods, Next Generation Sequencing, Quality Assurance, Rapid DNA, SAFER SAK Processing, Y-STR and Committee of Detail.

A round table discussion was held in the evening and the following topics were presented and/or discussed: subpopulation effect, contamination database, obtaining DNA from ammunition casings, retroactive statistical analysis, familial searching update, technical leader educational requirements, and differential validation.

Thursday, July 16, 2015

Dr. Joel Sutton, Chair of the Autosomal STR Committee, explained the format of, and reviewed revisions to, the STR Guidelines document. Once the document is finalized, it will be forwarded to the SWGDAM Executive Board for approval to go to the members and invited guests for a technical review.

Dr. Walther Parson of the Institute of Legal Medicine, Innsbruck Medical University, Innsbruck, Austria, provided an update on Massively Parallel Sequencing for forensic

STRs. Dr. Parson reviewed a brief history of potential nomenclature issues with nucleotide sequence data. Dr. Parson explained recommendations of the DNA Commission of the International Society for Forensic Genetics (ISFG) on minimal nomenclature requirements for forensic STRs that have been recently submitted for publication.

Update Session

Following the lunch break, the SWGDAM Chair announced the following four new members for SWGDAM: Scott McWilliams, Gary Molina, Shawn Montpetit, and Dixie Peters. Congratulations Scott, Gary, Shawn and Dixie!

The following Committees/Working Groups presented updates on their activities after lunch: CODIS, Enhanced Detection Methods, Next Generation Sequencing, Quality Assurance, Rapid DNA, SAFER SAK Processing, Y-STR and the Committee of Detail.

Dr. Peter Vallone of the National Institute of Standards and Technology (NIST) provided an update on NIST activities. With respect to SRM 2391c, if Component B is empty or reduced in volume, please contact Pete or Margaret Kline for a replacement. The Rapid DNA Maturity Assessment Study final results have been completed and published by Forensic Science International: Genetics Supplement Series 5 (2015) e1-e2. SRM 2372 is projected to be out of stock by June, 2017 and they are investigating candidate materials for SRM 2372a. Dr. Vallone reviewed digital PCR platforms, upcoming American Academy of Forensic Sciences (AAFS) presentations, INNUL assay, the FBI Consortium Validation Project publications in progress, and a Statistical Analysis Module. For Next Generation Sequencing, they have a paper being published in Forensic Science International: Genetics 21 (2016) 15-21 on "Sequence variation of 22 autosomal STR loci detected by next generation sequencing.

Dr. John Butler, of the National Institute of Standard and Technology (NIST), provided an update on the activities of the Biology Scientific Area Committee (SAC), the National Commission on Forensic Science and NIST. Dr. Butler noted that the kickoff for the NIST Forensic Science Center of Excellence was in October. A renewal MOU was signed between the Department of Justice and NIST in support of the National Commission and OSACs. Dr. Butler provided an update on the OSAC: working with a Standards Development Organization, meetings, and monthly newsletters. Dr. Butler also provided an update on the National Commission, including the NCFS subcommittees, timeline, work products process and public comment, and meeting dates.

Ms. Minh Nguyen from the National Institute of Justice (NIJ) presented an update on NIJ activities. There has been reorganization at NIJ with the establishment of the Office of Grants Management. Ms. Nguyen updated the attendees on the Science & Technology Policy Fellowships, FY2015 R&D Solicitation and Awards, the Graduate Research Fellowship in Science, Technology, Engineering and Mathematics, the FY R&D for Publicly Funded Forensic Science Laboratories to Assess the Testing and Processing of Physical Evidence, the Technology Working Group, and FY2016 Funding Opportunities. Ms. Nguyen also provided an update on the completed NAS NRC Report on NIJ (Support for Forensic Science Research) which acknowledged “the recent improvements made by NIJ and recommendations intended to improve NIJ’s capacity to support high-quality forensic science research.

Dr. Jenifer Smith with the Department of Forensic Sciences in Washington, D.C. provided an update on their plan for implementation of probabilistic genotyping software. Dr. Smith explained that the implementation plan for the probabilistic genotyping system includes the following: a training plan with additional technical foundation; intensive training sessions, outside agency speakers, testing/competency certification and validation in accordance with the SWGDAM Guidelines for the Validation of Probabilistic Genotyping Systems.

Ms. Dawn Herkenham, with Leidos, provided a brief legislative update that addressed pending arrestee litigation, Federal legislation, and cases of interest. Ms. Herkenham described S. 2348, the Rapid DNA Act of 2015 and compared the two bills (H.R. 320 and S.2348) pending in Congress on this subject. Ms. Herkenham reviewed the Maryland Court of Special Appeals decision in *Phillips v. State*, decided in October 2015 concerning the admissibility of DNA evidence under Maryland Code Courts & Judicial Proceeding §10-915.

III. Attendees:

Please see Attachment 2.

IV. Next Meeting:

The next meeting will be held July 12-14, 2016.



SCIENTIFIC WORKING GROUP

DRUG ANALYSIS METHODS

SWGDM REGULAR MEETING

January 12 - 14, 2016

AGENDA

Tuesday, January 12, 2016

8:00 AM Chair and Vice Chair Meeting

8:30 AM Welcome and Business Matters

COMMITTEE OF THE WHOLE SESSION: DISCUSSION OF INDIVIDUAL SECTIONS OF THE QAS

Moderator: Jocelyn Carlson, Chair SWGDAM QA Committee

9:00 AM Section 3: Quality Assurance Program – Beth Ann Marne

9:30 AM Section 5: Personnel – Jocelyn Carlson

10:00 AM BREAK

10:15 AM Section 8: Validation – Amy McGuckian

11:00 AM Section 9: Analytical Procedures – Amy McGuckian

12:00 PM LUNCH

1:30 PM Section 13: Proficiency Testing – Eugene Lien

2:45 PM Section 16: Safety – Elizabeth Morris

3:15 PM BREAK

3:30 PM Section 17: Outsourcing – Clark Jaw

4:15 PM Open Group Discussion of Topics from Remaining Sections: – QA Committee

5:15 PM ADJOURNMENT

6:00 PM Executive Board Meeting



SCIENTIFIC WORKING GROUP

DNA ANALYSIS METHODS

Wednesday, January 13, 2016

COMMITTEE OF THE WHOLE SESSION

8:30 PM Review of the draft SWGDAM Guidelines for the Processing of Sexual Assault Evidence Kits in a Laboratory – SAFER SAK Processing Working Group

COMMITTEE BREAKOUT SESSIONS

9:30 AM Committee Break-Out Sessions

12:00 PM LUNCH

1:00 PM Committee Break-Out Sessions

5:00 PM ADJOURNMENT

ROUND TABLE SESSION

Moderator: Russell Vossbrink, SWGDAM Vice Chair

6:00 PM Presentations

Thursday, January 14, 2016

COMMITTEE OF THE WHOLE SESSIONS

8:30 AM Review of the proposed SWGDAM STR Interpretation Guidelines and Autosomal STR Committee Update – Joel Sutton

10:30 AM Massively Parallel Sequencing – Walther Parson

12:00 PM LUNCH

UPDATE SESSION

1:30 PM Committees and Working Groups

CODIS – Darrel Oubre

Enhanced Detection Methods – Dixie Peters

Next Generation Sequencing Working Group – John Tonkyn

Quality Assurance – Jocelyn Carlson



SCIENTIFIC WORKING GROUP

DNA ANALYSIS METHODS

Rapid DNA – Pete Vallone

SAFER SAK Processing Working Group – Amber Carr

Y-STR – John Buckleton

Committee of Detail – Angelo Della Manna

2:30 PM NIST Update – Pete Vallone

3:00 PM Biology/DNA Scientific Area Committee – John Butler

3:30 PM National Commission on Forensic Science Update – John Butler

3:45 PM BREAK

4:00 PM NIJ Update - Minh Nguyen

4:30 PM DC Laboratory Update – Jenifer Smith

5:00 PM Legislative Update – Dawn Herkenham

BUSINESS SESSION

5:15 PM ADJOURNMENT

**SWGDM January 2016 Meeting
January 12-14, 2016
Attendees**

SWGDM Chair
Anthony Onorato

SWGDM Executive Board
Angelo Della Manna
Brian Hoey
Amy McGuckian
Steven Myers
Gary Sims
Russell Vossbrink
Dawn Herkenham (IG)

SWGDM Attendees
Jack Ballantyne (IG)
Suzanne Barritt-Ross (IG)
Todd Bille (IG)
Jo Bright (IG)
John Buckleton (IG)
John Butler (IG)
Thomas Callaghan
Jocelyn Carlson (IG)
Chris Carney
Amber Carr (IG)
Michael Coble (IG)
Jerrilyn Conway (IG)
Jennifer Coursey (IG)
James Curran (IG)
Seth Faith (IG)
Russell Gettig (IG)
Katherine Butler Gettings (IG)
Debra Glidewell (IG)
Ann Marie Gross
Lisa Grossweiler (IG)
Douglas Hares (IG)
Brian Harmon (IG)
Bruce Heidebrecht
Bill Hudlow (IG)
Deedra Hughes
Jodi Irwin (IG)
Clark Jaw (IG)

Elizabeth Johnson
Kristy Kadash (IG)
Susannah Kehl
Jason Kokoszka (IG)
Ken Konzak (IG)
George Li
Eugene Lien
Beth Ann Marne
Charla Marshall (IG)
Scott McWilliams
Jeff Modler (IG)
Gary J. Molina
Shawn Montpetit
Elizabeth Morris (IG)
Minh Nguyen (IG)
Mary Lou Nicholson (IG)
Jeffrey Nye
Darrel Oubre (IG)
Walther Parson (IG)
Dixie Peters
John Planz
Evelyn Ridgley (IG)
Juliet Rolando
Lisa Schiermeier-Wood (IG)
Jenifer Smith (IG)
Melissa Suddeth (IG)
Joel Sutton
John Tonkyn
Peter Vallone (IG)
Bruce Weir (IG)
Ray Wickenheiser (IG)
Richard Wilson (IG)
Tim Zolandz (IG)