

Scientific Working Group on DNA Analysis Methods (SWGDM) July 2023 Report

July 18-20, 2023

I. Agenda:

Please see Attachment 1.

II. Meeting Synopsis:

Tuesday, July 18, 2023

The SWGDAM Chair, Anthony Onorato, welcomed attendees to the meeting with an introduction exercise before the Update Session.

PARTNER AGENCY UPDATES

Dawn Herkenham, SWGDAM Executive Secretary, provided a Legislative Update on Federal legislation, including a review of Federal DNA and forensic science grant appropriations for the last decade. Ms. Herkenham reported on 2023 State legislation relating to arrestee expansion, elimination records, genetic genealogy, genetic privacy, Rapid DNA and sexual assault evidence kits. She also reviewed recent cases in State courts.

Kristy Kadash, liaison with the Academy Standards Board (ASB), provided an explanation of her new role as liaison. She provided the following information about the various relationships for the involved organizations: The American Academy of Forensic Sciences (AAFS) hosts the ASB and agreement with NIST to post published standards on the OSAC Registry. The ASB is under the AAFS and encourages the use of these standards. They are also publishing one page fact sheet checklists to be used for audit purposes. All DNA subject documents will go through the ASB process. Kristy reviewed examples of the interrelationship of the documents on training and validation.

Carl Sobieralski, Chair of the Biology Scientific Area Committee provided an update on their activities. He explained the two categories of documents – published standards that have gone through the standards development process and proposed standards that are not yet on the Registry. Mr. Sobieralski also noted that they are looking at the research and development needs in the forensic community.

Ray Wickenheiser, Chair of the Forensic Science Standards Board, provided an update on the American Society of Crime Laboratory Directors (ASCLD). He reviewed ASCLD's strategic objectives, including cultivating forensic science leaders and promoting quality operations. Mr. Wickenheiser reviewed programs, advocacy and communications and the upcoming Forensic Science Week: September 17-23, 2023. He noted that ASCLD is focused on recruiting new members and a new membership academy.

Tracey Johnson, with the National Institute of Justice (NIJ), provided an update on the NIJ Office of Investigative and Forensic Services. She reported that the NIJ Forensic Research & Development TWG met last year to discuss new techniques and identified some additional needs: methods for database entry for search/resolution using probabilistic genotyping and establishing ground truth data sets across a range of data types. Ms. Johnson noted that there are openings for Peer Reviewers for the research grants and provided updates on the Research Forensic Library, the Graduate Fellowship Program and the Forensic Technology Center of Excellence.

Peter Vallone, with the National Institute of Standards and Technology (NIST) provided the following updates on their programs: the SRM 2391d updates are complete with new website with language changes – SNPs are included; the Promega Spectrum instrument is being tested; working on a collaborative project with the FBI, NIST and ESR - putting data into STRmix and understanding the MCMC variations; automating the submission process for publications and population data to STRbase; the NIJ/NIST Expert Working Group on Human Factors is nearing completion of their document having now incorporated public comments. Mr. Vallone also explained that in addition to the SRM, there is a research grade test material (RGTM) which, although not as highly characterized as the SRM, has a more efficient development cycle. The RGTMs could assist in internal validation efforts; will help inform future SRMs provided to the forensic community; may be used as training samples; and the expanded informed consent allows for sharing of samples and data. Erica Romsos reviewed additional information on the RGTMs.

The Chair updated the group on his conversations with the ASCLD and OSAC representatives relating to the many standards, guidelines and other documents being generated by the various groups involved in forensic DNA and the need to define the roles of each organization more clearly. There was extensive discussion on why all these organizations are dictating what needs to be done on DNA and how to keep abreast of all the documents generated. It was suggested that it may be advantageous to define what organizations are responsible for issuing standards, guidelines, best practices, checklists, etc.. in order to avoid duplicative efforts and avoid inconsistent messaging. The Chair suggested that this is the beginning of the discussion on this topic and it may be explored further at the January 2024 meeting.

Wednesday, July 19, 2023

COMMITTEE/WORKING GROUP BREAKOUT SESSIONS

The Committees and Working Groups met for individual meetings during the day. A Round Table was held in the evening where there were presentations on the following topics: categorical terms, likelihood ratios and verbal qualifiers; validations; and a hit with Rapid DNA in a booking station; and Rapid DNA.

Thursday, July 20, 2023

COMMITTEE OF THE WHOLE SESSION

The SWGDAM Chair provided a review period for draft Committee documents. Preliminary comments were solicited during the meeting.

Douglas Hares, Chair of the Rapid DNA Committee, presented on the draft Rapid DNA standards. Mr. Hares explained that the laboratory is the driver and provides the quality structure for increasing capacity, reach back and the ability to search CODIS. Mr. Hares explained that there are four groups working towards crime scene Rapid: the CJIS Advisory Board Rapid DNA Task Force; the FBI Rapid DNA Crime Scene Task Force; the SWGDAM Casework Expert System Working Group and Rapid DNA Committee; and the NDIS Procedures Board. Mr. Hares announced that the Multi-Laboratory Study will begin in August and he reviewed a proposed timeline for the draft standards. He noted that there is more information in the “Guide to all Things Rapid” – available on the le.fbi.gov website.

Todd Bille, Chair of the Committee of Detail on Probabilistic Genotyping, presented the SWGDAM Resource Materials for the Non-Scientist on Probabilistic Genotyping Systems. Attendees commented on the draft document during the review.

Lauren Lu, with the Laboratory Operations Committee, presented the draft Probabilistic Genotyping Validation Module. Ms. Lu reviewed the parts of a study - purpose, considerations, example and outcome. Attendees commented on the draft document during the review.

Ann Marie Gross, Chair of the Committee of Detail on Missing Persons, highlighted the revisions made by her Committee in their review of the SWGDAM Missing Persons Casework Guidelines document. She explained the new provisions and noted that a fresh unidentified human remain with buccal swab or blood draw will be treated as a reference sample.

Brandon Letts with the Linear Marker Committee presented on the revisions to the MtDNA Interpretation Guidelines. He explained that the guidance is split into Interpretation Guidelines and FAQ. He reviewed the substantive revisions and noted that phylogenetic and whole genome sequencing are addressed in these revisions.

Jocelyn Carlson, Chair of the Quality Assurance (QA) Committee, reviewed the concepts for the 2025 QAS Revisions. She discussed the options for personnel education requirements in Standard 5. The consensus was to maintain the population genetics and statistics course. There was agreement to get rid of the course titles. The QA Committee will continue to work on the education requirements.

III. Attendees:

Please see Attachment 2.

IV. Next Meeting:

The next meeting will be held January 9 – 11, 2024.

Attachment 1 - Final Agenda

SCIENTIFIC WORKING GROUP



DNA ANALYSIS METHODS

**SWGDM JULY 2023 REGULAR MEETING
AGENDA**

Monday, July 17, 2023

9:00 AM – 5:00 PM ET

SWGDM Executive Board Meeting

Tuesday, July 18, 2023

9:00 AM – 12:00 PM ET

PARTNER AGENCY UPDATE SESSION

Legislative Update

American Society of Crime Laboratory Directors

National Institute of Standards and Technology

Bureau of Justice Assistance

National Institute of Justice

Biology/DNA Scientific Area Committee

European Network of Forensic Science Institutes

LUNCH

1:00 PM – 5:00 PM ET

PARTNER AGENCY UPDATE SESSION CONTINUED

Chair Anthony J. Onorato

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SCIENTIFIC WORKING GROUP

DNA ANALYSIS METHODS

Wednesday, July 19, 2023

9:00 AM – 5:00 PM ET

COMMITTEE/WORKING GROUP BREAKOUT SESSIONS

6:00 PM – 8:00 PM ET

ROUND TABLE SESSION

Thursday, July 20, 2023

9:00 AM – 5:00 PM ET

DOCUMENT REVIEW SESSION

COMMITTEE OF THE WHOLE SESSIONS

As requested by Committee/Working Groups

ADJOURNMENT

Attachment 2 - Attendees

**SWGDM July 2023 Meeting
July 18 - 20, 2023
Attendees***

SWGDM Chair
Anthony Onorato

SWGDM Vice Chair
Russell Vossbrink

SWGDM Executive Secretary
Dawn Herkenham

SWGDM Attendees

Chris Askew
Suzanne Barritt-Ross
Tiffany Bazazzadegan
Todd Bille
Thomas Callaghan
Jocelyn Carlson
Chris Carney
Amber Carr
Dorothy Catella
Michael Coble
Jerrilyn Conway
James Corcoran
Jennifer Coursey
Neil Fernandopulle
Connie Fisher
Julia Garofalo
Russell Gettig
Katherine Gettings
Ann Marie Gross
Lisa Grossweiler
Jessica Hanna
Douglas Hares
Brian Harmon
Bruce Heidebrecht
Joseph Hof
Deedra Hughes
Ted Hunt
Jodi Irwin

Jessica James
Tracey Johnson
Kristy Kadash
Marla Kaplan
Ben Knoch
Jason Kokoszka
Brandon Letts
Eugene Lien
Jason Linder
Lauren Lu
Charla Marshall
Barbara McCarty
Amy McGuckian
Scott McWilliams
Gary Molina
Shawn Montpetit
Lilly Moreno
Ashley Murray
Steven Myers
Vanessa Nelson
Heather Parrish
Dixie Peters
Harrison Redd
Juliet Rolando
Erica Romsos
Lisa Schiermeier-Wood
Alyssandra Shaffer
Phillip Simmers
Rhalie Simmons
Christie Smith
Mark Smith
Carl Sobieralski
Melissa Suddeth
Joel Sutton
Tiffany Thoren
Peter Vallone
Tiffany Vasquez
Jeanette Wallin
Susan Welti
Ray Wickenheiser
Richard Wilson
Timothy Zolandz