

ENFSI Meeting, April 2018



SWGDM Update



Responsibilities

- Recommend revisions, as necessary, to the *Quality Assurance Standards for Forensic DNA Testing Laboratories* and the *Quality Assurance Standards for DNA Databasing Laboratories*.
- Serve as a forum to discuss, share, and evaluate forensic biology methods, protocols, training, and research to enhance forensic biology services.
- Recommend and conduct research to develop and/or validate forensic biology methods (Section I).



Organization

- Chair: Anthony J. Onorato, FBI Laboratory
- Vice Chair: Russell Vossbrink, Arizona DPS
- Executive Board: Chris Carney, Eugene Lien, Amy McGuckian, Shawn Montpetit, and John Tonkyn
- Executive Secretary: Dawn Herkenham
- Members are technical leaders, CODIS Administrators, or forensic scientists from local, state and federal crime laboratories
 - 32 Regular Members
 - 3 year membership term(s)
- Two regular meetings per year in January and July
- Invited Guests participate in meetings
 - Invited Guests have full participatory/voting privileges in Committee and Committee of the Whole Sessions
 - Invited Guests do not vote when the SWGDAM Membership takes up documents for final approval (SWGDAM Bylaws, Section II.D)



SWG DAM Members

- Angelo Della Manna
- Thomas Callaghan
- Chris Carney
- Russell Gettig
- Ann Marie Gross
- Bruce Heidebrecht
- Deedra Hughes
- Elizabeth Johnson
- Kristine Kadash
- Susannah Kehl
- Jason Kokoszka
- Eugene Lien
- Beth Ann Marne
- Amy McGuckian
- Scott McWilliams
- Jeff Nye
- Gary Molina
- Shawn Montpetit
- Tamyra Moretti
- Steven Myers
- Anthony Onorato
- John Planz
- Dixie Peters
- Juliet Rolando
- Suzie Barritt-Ross
- Christie Smith
- Jenifer Smith
- Melissa Suddeth
- Joel Sutton
- John Tonkyn
- Russell Vossbrink
- Lisa Schiermeier-Wood



Committees

- Autosomal STR Interpretation
- CODIS
- Laboratory Operations
- Lineage Marker
- Next Generation Sequencing Working Group
- Quality Assurance
- Rapid DNA
- Verbal Equivalent Working Group



Committee Changes

- Enhanced Detection Methods and Interpretation (Transitioned to Laboratory Operations)
- Laboratory Operations (New)
- Lineage Marker (New)
- Sexual Assault Kit Evidence Processing Working Group (Disbanded)
- Y-STR (Transitioned to Lineage Marker)



Meetings

- Three SWGDAM Meetings held in 2017
 - January 10-12, 2017
 - July 11-13, 2017
 - November 13, 2017 (FBI TL Summit Update)
- Three SWGDAM Meetings to be held in 2018
 - January 9-11, 2018
 - July 10-12, 2018
 - FBI TL Summit (General Update Session)



January 2018 Meeting

- Held in Woodbridge, VA on January 9-11, 2018.
- 72 participants with 4 international, 30 domestic federal, and 38 domestic state and local attendees.
- The SWGDAM QA Committee met on January 8th in special session.
- Held Committee of the Whole discussions of proposed revisions to the 2011 FBI National DNA Quality Assurance Standards (QAS).
- A half-day Technical Session was held to discuss the work of SWGDAM's Verbal Equivalent Working Group
- A half-day Committee Breakout Sessions were held and the NGS Working Group met in special session.
- Update and Roundtable Sessions were held.



Roundtable Topics

- SWGDAM Laboratory Operations Committee Update
- 3500 Troubleshooting
- ASCLD Rapid DNA Initiative
- Touch DNA/Direct Amplification using NGS
- Implementation of Y-Screening in a Multi-Lab System
- Single Base Variants in Mixtures
- Sexual Assault Kit Legislation, Create Your Destiny
- Cal DOJ MPS Evaluations for MtDNA Sequencing



July 2017 Meeting

- Held in Woodbridge, VA on July 11-13, 2017.
- 66 participants with 3 international, 26 domestic federal, and 37 domestic state and local attendees.
- The SWGDAM QA Committee met on July 10th in special session.
- Held Committee of the Whole discussions of proposed revisions to the 2011 FBI National DNA Quality Assurance Standards (QAS).
- No Technical or Committee Breakout Sessions were held.
- The NGS Working Group met in special session.
- Update and Roundtable Sessions were held.



Roundtable Topics

- Validation Review Committee
- 3500 Troubleshooting
- ASCLD Rapid DNA Initiative
- Touch DNA/ Direct Amplification using NGS
- The Implementation of Y-Screening in a Multi-Lab System
- Single Base Variants in Mixtures
- Sexual Assault Kit Legislation, Create Your Destiny
- Cal DOJ MPS Evaluations for MtDNA Sequencing



SWGDM Participation

- January 2018: 72 participants with 4 international, 30 domestic federal, and 38 domestic state and local attendees.
- July 2017: 66 participants with 3 international, 26 domestic federal, and 37 domestic state and local attendees.
- January 2017: 59 participants with 4 international, 22 domestic federal, and 33 domestic state and local attendees.
- July 2016: 69 participants with 9 international, 24 domestic federal, and 36 domestic state and local attendees.
- January 2016: 68 participants with 6 international, 25 domestic federal, and 37 domestic state and local attendees.



Recent Business



Outreach

- QA Committee Chair Jocelyn Carlson presented on SWGDAM's work to propose changes to the 2011 FBI National Quality Assurance Standards (QAS) at the combined meeting of the Midwestern Association of Forensic Scientists, American Society of Trace Evidence Examiners, and Southern Association of Forensic Scientists in Cincinnati, OH.
- Douglas Hares provided an update on SWGDAM's work to propose updates to the 2011 QAS at the 2017 Annual Association of Forensic DNA Analysts and Administrators in Austin, TX.
- FBI Biometric Analysis Section Chief Tina Delgado presented the poster "Anticipated Changes to the DNA QAS Documents" at the American Crime Laboratory Directors Symposium (ASCLD) in Dallas, TX.
- Douglas Hares provided a SWGDAM update at the 2017 European Network of Forensic Science Institutes (ENFSI) DNA Working Group Meeting in Berlin.



Body Fluid Identification Working Group

- SWGDAM has empaneled a Body Fluid ID Working Group.
- This working group has been tasked to consider the current state of forensic serological testing, the next generation of body fluid testing technology, the potential operational value of conventional and future serological testing, and the potential integration of both into current and future laboratory workflows.
- Participants include: Marla Kaplan (Chair), Jason Kokoszka (Vice Chair), Lilly Moreno, Gary Schutler, Evelyn Ridgley, Ray Wickenheiser, Mellissa Suddeth, Neil Fernandopulle, Russell Vossbrink, and Mary Lou Nicholson.



Biology/DNA SAC Interactions



OSAC Interactions

- In collaboration with the Biology/DNA Scientific Area Committee (SAC), SWGDAM has installed Dr. John Butler as its OSAC Representative.
 - Dr. Butler attended SWGDAM's January 2018 Regular Meeting.
- The SWGDAM Vice Chair has a standing invitation to participate in the monthly teleconferences held by the Biology/DNA SAC as well as to attend regularly scheduled OSAC meetings to provide information to or receive feedback on behalf of SWGDAM.
 - SWGDAM Vice Chair Russell Vossbrink participated in the May 26th, August 25th, October 27th, December 22nd, January 26th, and March 9th, Biology/DNA SAC Teleconferences.



OSAC Interactions

- The SWGDAM Executive Board has granted the Biology/DNA SAC “Interested Party” status with respect to SWGDAM draft documents
- All draft SWGDAM documents will be submitted for review and comment to the Biology/DNA SAC during the required 30 day SWGDAM Body technical review period and comments made by individual OSAC reviewers will be submitted, compiled, and adjudicated together with individual SWGDAM comments.
 - The SWGDAM Chair provided Dr. John Butler SWGDAM’s proposed revisions to the FBI National Forensic DNA Quality Assurance Standards (QAS) for review and comment via email on June 1, 2017.



Committee Work



Autosomal STR

- Chair Joel Sutton of USACIL, Vice-Chair Bruce Heidebrecht of the Maryland State Police
- Participated in community outreach opportunities to socialize the 2017 revised STR Interpretation Guidelines.
- Have begun revision of the 2017 SWGDAM *Interpretation Guideline for Autosomal STR Typing by Forensic DNA Laboratories* to incorporate probabilistic genotyping guidance with a developmental target of 12-18 months for publication.



CODIS

- Chair Darrel Oubre of the FBI, Vice-Chair Deedra Hughes of the Mississippi Crime Laboratory
- Served as a Committee of Detail to assist the QA Committee to review and suggest proposed changes to Standard 17.
- Reviewed QA Committee's proposed revisions to the Forensic QAS prior to SWGDAM Committee of the Whole reviews.
- Discussing Automated Hit Counting, CODIS 8.0 training, definition of Forensic Unknown, and updates to the NDIS configurations documents.



Laboratory Operations Committee

- Chair Lisa Schiermeier-Wood of Virginia Department of Forensic Science, Vice-Chair Amber Carr of the FBI
- Drafting proposed SWGDAM Technical Note regarding proficiency testing of Y-STR screening workflows.
- Reviewing the 2016 SWGDAM *Validation Guidelines for Forensic DNA Analysis Methods* to recommend potential revisions and to consider a Core Element format for this document.
- Discussed the impacts of cognitive bias on forensic DNA analysis and recommended that SWGDAM convene a working group on this topic.



NGS Working Group

- Chair Jenifer Smith of the Washington DC Department of Forensic Sciences, Vice-Chair Jodi Irwin of the FBI
- Completed NGS-specific revisions to the *SWGAM Validation Guidelines for DNA Analysis Methods* that are available on SWGAM.org on the Publications Page.
- Drafting NGS interpretation guidelines for mtDNA testing.
- Drafting NGS interpretation guidelines for autosomal STR testing.



Quality Assurance

- Chair Jocelyn Carlson of the FBI, Vice-Chair Beth Ann Marne of the Pennsylvania State Police
- Reviewed the 2011 FBI *Forensic and DNA Databasing Quality Assurance Standards (QAS)* to propose revisions to the FBI Director.
- Participating in community outreach opportunities to socialize the proposed QAS revisions and creation of a Audit Guidance Document.
- Revising the QAS Audit Documents and creating an Audit Guidance Document to house what historically has been the discussion content of the Forensic and DNA Databasing QAS Audit Documents.



Projected QAS Timeline

- SWGDAM approved its proposed changes to the *Quality Assurance Standards for Forensic DNA Typing Laboratories* at its January 2018 Regular Meeting and they are currently posted on the Home Page of SWGDAM.org.
- SWGDAM is reviewing the *Quality Assurance Standards for DNA Databasing Laboratories* with the target for SWGDAM approval being the July 2018 SWGDAM Meeting.
- SWGDAM will align the QAS Audit Documents with their respective proposed revised QAS documents with the target for SWGDAM approval being the July 2018 SWGDAM Meeting.
- SWGDAM is currently drafting a new Audit Guidance Document with the target for approval being the January 2019 SWGDAM Meeting SWGDAM.
- SWGDAM is coordinating with the FBI for January 2019 publication of the FBI approved QAS documents with an effective date of July 2019 to provide laboratories time to implement any required new measures for compliance.



Rapid-DNA

- Chair Richard Wilson of the FBI, Vice-Chair Peter Vallone of NIST
- Completed a *SWGDM Position Statement on Rapid DNA Analysis* that is available on the Publications Page of SWGDAM.org.
- Drafting a standalone R-DNA QAS Document for R-DNA testing in the booking station environment using existing field testing standards as potential models (e.g., breathalyzer, radar gun, etc.)
- Drafting a FBI Rapid-DNA Concept of Operations Document using the existing FBI CJIS Staff Paper as a model.
- Drafting a plan for a Rapid-DNA pilot project for testing/implementing/using this technology in the booking station environment.



LR Verbal Scale Working Group

- Convened to provide interim guidance for employing verbal equivalents.
 - The revised 2016/2017 autosomal STR interpretation guidelines will likely provide guidance for the use of verbal scales.
 - ENFSI already endorses LRs and has a recommended verbal scale for all forensic disciplines in its Guidelines for Evaluative Reporting in Forensic Science.
 - Any further guidance SWGDAM provides regarding verbal equivalents will likely be incorporated into the probabilistic genotyping guidance in the next revision of the SWGDAM autosomal STR interpretation guidelines which will likely not be issued for 12-18 months.
- Participants include: Shawn Montpetit (Chair), Jerrilyn Conway, Ted Hunt, Sander Kneppers, Eugene Lien, Tamyra Moretti, Steven Myers, Joel Sutton, Susan Welti, Russell Vossbrink, and Lisa Schiermeier-Wood



Lineage Marker

- Chair Dixie Peters of UNT, Vice Chair Ann Marie Gross of the Minnesota BCA
- Reviewing the 2014 SWGDAM *Interpretation Guidelines for Y-Chromosome STR Testing* to recommend potential revisions to this document.
- Reviewing the 2013 SWGDAM *Interpretation Guidelines for Mitochondrial DNA Analysis by Forensic DNA Testing Laboratories* to recommend potential revisions and consider a Core Element format for this document.



Future Business



Contextual Bias Working Group

- The SWGDAM Chair requested that the Laboratory Operations Committee discuss the topic of contextual bias in forensic DNA testing and advise the SWGDAM Executive Board.
- The SWGDAM Executive Board endorsed the formation of a Contextual Bias Working Group at its May 2017 teleconference.
- The current plan is for this Working Group to be convened by the SWGDAM Chair once SWGDAM has completed its work on the FBI's Quality Assurance Standards (QAS).



Rapid DNA Testing

- ASCLD has invited SWGDAM to nominate participants for its *ad hoc* Task Force on Rapid DNA.
- SWGDAM has published a Position Statement on Rapid DNA Analysis which is available on the Publications Page of SWGDAM.org.
- Will propose a 3rd Quality Assurance Standard (QAS) document for R-DNA testing in non-laboratory settings for consideration by the FBI Director.
- The SWGDAM Chair attended the FBI's Rapid DNA Symposium in Washington, DC on March 19, 2018.

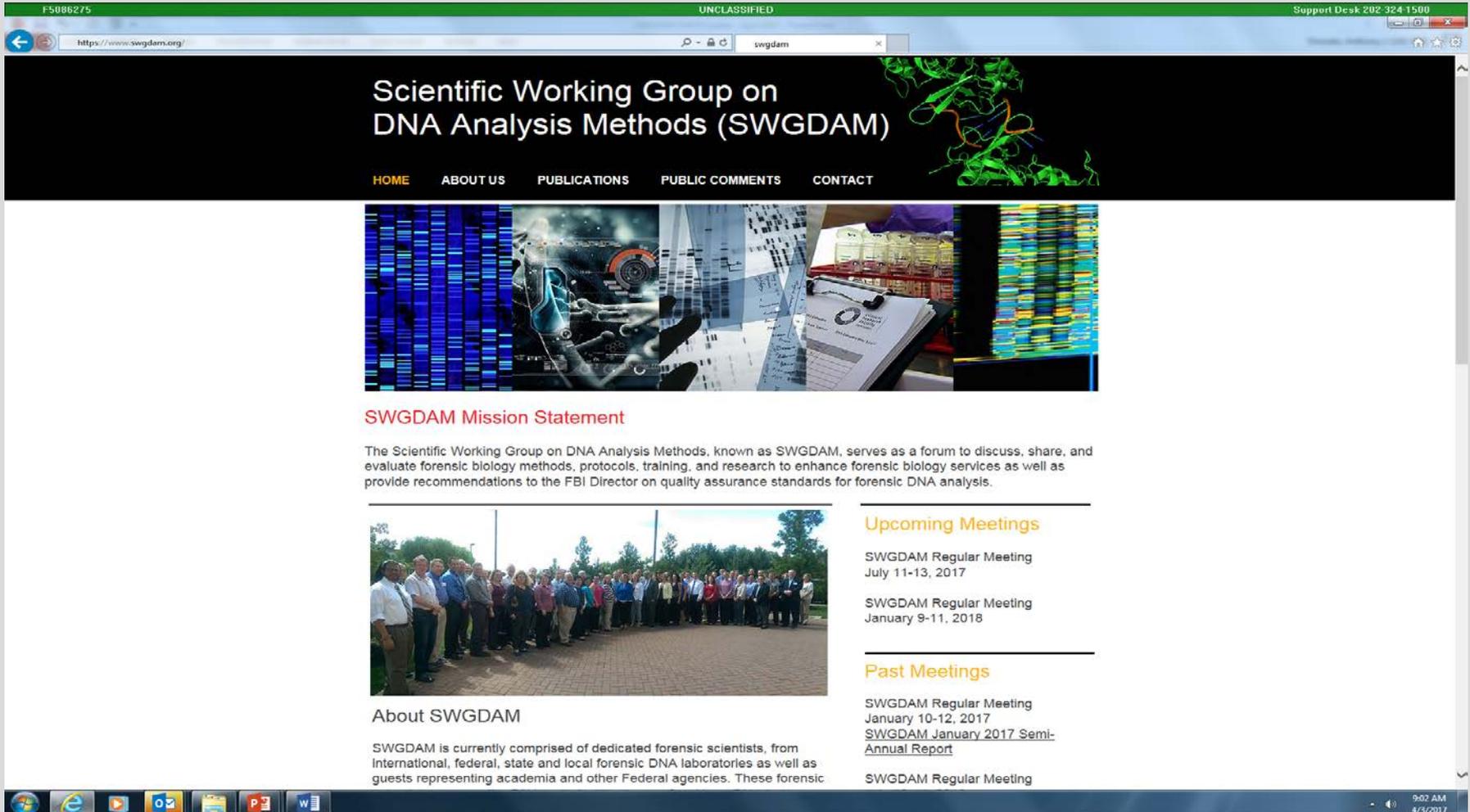


Familial Searching

- *Recommendations from the SWGDAM Ad Hoc Working Group on Familial Searching - 2013*
 - **Recommendation 1.4:**Once the additional CODIS core loci are implemented, the Working Group recommends that these issues be reconsidered. Meanwhile, the data accompanying these recommendations may provide guidance to states considering routine familial searching based upon the kinship LR.
- The 2017-2020 SWGDAM Executive Board will discuss the 2013 Recommendations now that the expanded CODIS core loci have been implemented.

www.swgdam.org

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The screenshot shows a web browser window displaying the homepage of the Scientific Working Group on DNA Analysis Methods (SWGDM). The browser's address bar shows the URL <https://www.swgdam.org/>. The page features a dark header with the organization's name and a navigation menu. Below the header is a large banner image depicting DNA analysis equipment and data. The main content area includes a mission statement, a group photo, and sections for upcoming and past meetings.

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Scientific Working Group on DNA Analysis Methods (SWGDM)

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SWGDM Mission Statement

The Scientific Working Group on DNA Analysis Methods, known as SWGDM, serves as a forum to discuss, share, and evaluate forensic biology methods, protocols, training, and research to enhance forensic biology services as well as provide recommendations to the FBI Director on quality assurance standards for forensic DNA analysis.



About SWGDM

SWGDM is currently comprised of dedicated forensic scientists, from international, federal, state and local forensic DNA laboratories as well as guests representing academia and other Federal agencies. These forensic

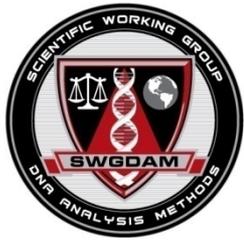
Upcoming Meetings

- SWGDM Regular Meeting
July 11-13, 2017
- SWGDM Regular Meeting
January 9-11, 2018

Past Meetings

- SWGDM Regular Meeting
January 10-12, 2017
- [SWGDM January 2017 Semi-Annual Report](#)
- SWGDM Regular Meeting

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or

SWGAM.org

