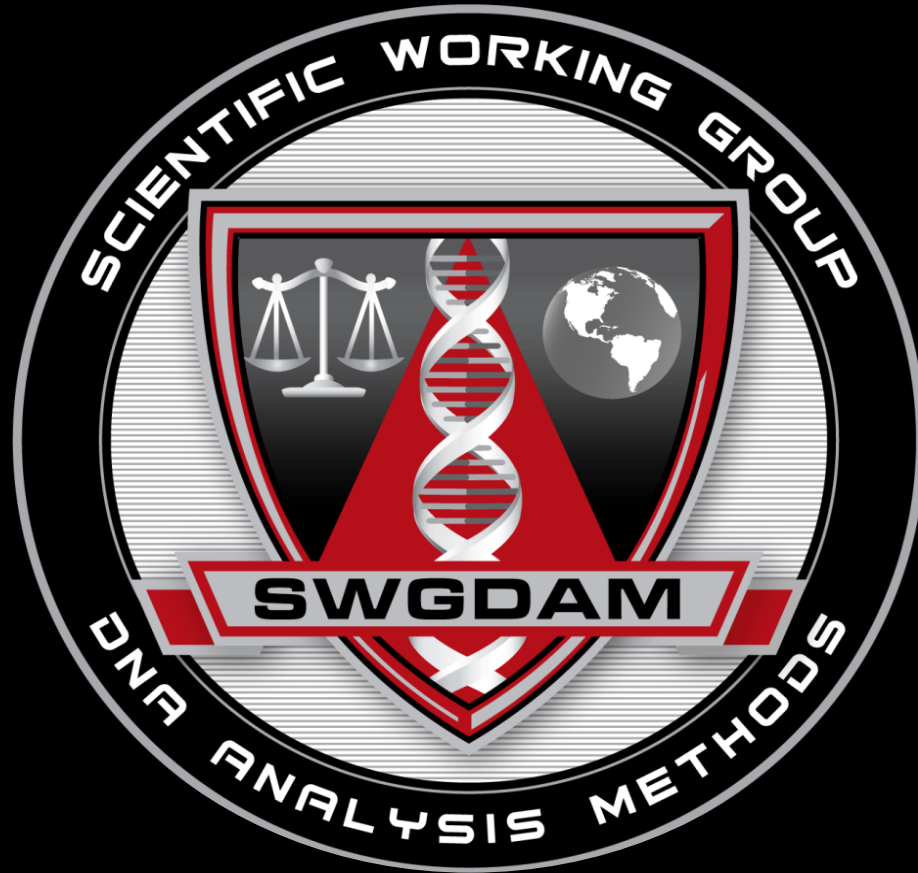


ENFSI Meeting, April 2019



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)



SWGDM Participation

- July 2018: 73 participants with 6 international, 27 domestic federal, and 40 domestic state and local attendees.
- 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.



Future Meetings

- Two SWGDAM Meetings to be held in 2019
 - January 8-10, 2019 (Cancelled due to the US Federal Government Shutdown)
 - July 9-11, 2019
 - November, 2019 (Update at FBI National Technical Leader Summit)
- Three SWGDAM Meetings to be held in 2020
 - January 7-9, 2020
 - July 7-9, 2020
 - November, 2020 (Update at FBI National Technical Leader Summit)



Standing Committees

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



Working Groups

- Body Fluid Identification Working Group
- Forensic DNA Expert System Working Group
- Joint NIJ/SWGDAM DNA Efficiency Improvement Working Group



Body Fluid Identification Working Group

- SWGDAM has empaneled a Body Fluid ID Working Group.
- This Working Group has been tasked to review (1) the current state of forensic serological testing; (2) the next generation of body fluid testing technology; (3) the potential operational value of conventional and future serological testing; (4) the potential integration of both current and future laboratory workflows; and (5) the use of screening techniques to streamline general workflows.
- The Working Group is preparing a survey for laboratories to obtain information on direct-to-DNA workflows.
- Participants include: Marla Kaplan (Chair), Jason Kokoszka (Vice Chair), Lilly Moreno, Gary Shutler, Evelyn Ridgley, Ray Wickenheiser, Melissa Suddeth, Neil Fernandopulle, Russell Vossbrink, and Mary Lou Nicholson.



Forensic DNA Casework Expert System Working Group

- SWGDAM has empaneled a Forensic DNA Casework Expert System Working Group.
- This Working Group has been tasked to evaluate the feasibility of using allele calling software tools as Expert Systems (as defined in the NDIS Operational Procedures) for interpreting forensic casework samples in ways similar to or different from the manner in which these tools are already used by DNA databasing laboratories.
- The WG will essentially serve as an extension to the 2005 SWGDAM Expert System Committee that recommended the current NDIS Expert System requirements.
- Any resulting SWGDAM guideline document will likely be cited in the NDIS Operational Procedures as a compliance requirement for the submission of evaluations of forensic casework Expert Systems to the FBI for NDIS approval.
- Participants include: Amy McGuckian (Chair), Tamyra Moretti (Vice Chair), Chris Carney, James Corcoran, Eric Duvall, Jessica Hannah, Brian Harmon, Marla Kaplan and Darrel Oubre.



Joint NIJ/SWGDM Working Group

- The National Institute of Justice's (NIJ) Office of Investigative and Forensic Sciences has invited SWGDAM to collaborate to form a DNA Efficiency Improvement Working Group (DEI WG) to develop best practices for the enhancement of DNA laboratory efficiency.
- Membership on the DEI WG resulted from nominations solicited from SWGDAM participating and NIJ DNA Capacity Enhancement and Backlog Reduction funded agencies and will meet using a combination of remote and in-person meetings over the course of 12-18 months with the first meeting scheduled for January 30 – February 1, 2019 in Washington, DC.
- The Working Group is composed of subcommittees targeting the high-leverage areas of Laboratory Operations, Training and Hiring, Reporting and Data Management, Case Intake Lifecycle, and New Technologies and Change Management.
- NIJ will provide the funding for all non-federal government participants.
- SWGDAM Participants include: Jeanette Wallin, Kristin Sasinouski, Eugene Lien, Joanie Brocato, Juliet Rolando, Melissa Suddeth, Amber Carr, Tamyra Moretti, Lisa Schiermeier-Wood, Brenda Danosky, Lilly Moreno, Russell Vossbrink, and Evelyn Ridgley



Other Groups

- Survivors’ Bill of Rights Act Working Group
- Joint OSAC/SWGDAM DNA Process Mapping Project
- Committee of Correspondence: Forensic Genealogy



Survivors' Bill of Rights Act Working Group

- The SWGDAM Chair was contacted by the USDOJ's Office of Violence Against Women to participate in a working group mandated by the Survivors' Bill of Rights Act (SBRA).
- The SBRA directed the Attorney General, in consultation with the Secretary of Health and Human Services, to establish a joint working group to develop, coordinate, and disseminate best practices regarding the care and treatment of sexual assault survivors and the preservation of forensic evidence.
- This Working Group was tasked to review (1) the current state of forensic serological testing; (2) the next generation of body fluid testing technology; (3) the potential operational value of conventional and future serological testing; (4) the potential integration of both current and future laboratory workflows; and (5) the use of screening techniques to streamline general workflows.
- The Survivor's Bill of Rights Working Group (SBRWG) met 4 times in 2018 and convened experts from stakeholder groups identified in the Survivors' Bill of Rights Act to include sexual assault survivors, victim advocates and counselors, forensic laboratory personnel, healthcare providers and forensic healthcare providers, law enforcement officers, and prosecutors.
- The SBRWG delivered its Report to Congress as mandated by the 2016 Survivors' Bill of Rights Act in October 2018.
- Participants included: Tony Onorato and Amber Carr.



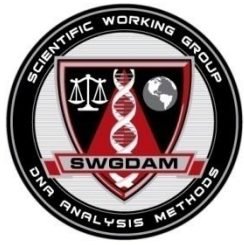
Joint OSAC/SWGDM Process Mapping Working Group

- The Organization of Scientific Area Committees for Forensic Science (OSAC) and SWGDAM are collaborating on a combined DNA Process Mapping Project.
- This Working Group will establish a process map detailing the specific steps executed during the casework DNA analysis process from sample intake through reporting.
- It is anticipated that the WG's product will benefit the current and future activities of groups such as the OSAC, SWGDAM, NIJ's DNA Efficiency Improvement Working Group, and NIST's future Human Factors Working Group on DNA Mixture Interpretation to continually improve the delivery of forensic DNA analysis services.
- A OSAC/SWGDM DNA Process Mapping Session was held on November 28-30, 2018 at the National Institute of Standards and Technology (NIST). A second session is tentatively scheduled for Spring 2019.
- SWGDAM participants included: Amber Carr, Ann Marie Gross, Eugene Lien, Melissa Suddeth, and Jeanette Wallin.



Committee of Correspondence

- A Committee of Correspondence on Forensic Genealogy is being empaneled in the spring of 2019.
- The Committee will include representatives from SWGDAM, the European Network of Forensic Science Institutes (ENFSI), the Organization of Scientific Area Committees (OSAC) Biology/DNA Scientific Area Committee (Biology/DNA-SAC), and other experts in Forensic Genealogy.
- Taskings for the Committee will include:
 - Propose a format for, and prepare a draft of, a Position Statement on Forensic Genealogy.
 - Propose an agenda for a Technical Session on the topic of Forensic Genealogy as a part of the July 9-11, 2019 Regular SWGDAM Meeting.
 - Recommend what, if any, future work SWGDAM should undertake on Forensic Genealogy.



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 development target of 12-18 months for publication.



CODIS

- Chair Darrel Oubre of the FBI, Vice-Chair Deedra Hughes of the Mississippi Crime Laboratory
- Serving as a Committee of Detail to assist the QA Committee in the development of the new QAS Guidance Document.
- Discussing implementation of Rapid (such as populating LEA ORI into CODIS), FAQ review on conditioning mixtures and address Standard 17 comments



Laboratory Operations Committee

- Chair Lisa Schiermeier-Wood of the Virginia Department of Forensic Science, Vice-Chair Amber Carr of the FBI.
- Drafting clarifications to select inquiries submitted to SWGDAM for the issuance of SWGDAM Technical Notes or posting on the FAQ Page of SWGDAM.org.
 - Completed the *SWGDM Clarification on Proficiency Testing of qPCR Workflows Including Y-Screening* (August 2018).
 - Developing a SWGDAM technical note regarding traceability.
- Reviewing the 2016 *SWGDM Validation Guidelines for Forensic DNA Analysis Methods* to recommend potential revisions and to consider a new core element or modular format for this document.



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 that have been incorporated into the 2016 *SWGAM Validation Guidelines for DNA Analysis Methods* that are available on the Publications page of SWGDAM.org (December 2016).
- Drafted proposed NGS interpretation guidelines for mtDNA testing to be incorporated into the 2013 *SWGAM Mitochondrial DNA Analysis Interpretation Guidelines*.
- Drafted NGS interpretation guidelines for autosomal STR testing to be incorporated into the 2017 *SWGAM Interpretation Guideline for Autosomal STR Typing by Forensic DNA Laboratories*.



Quality Assurance

- Chair Jocelyn Carlson of the FBI, Vice-Chair Beth Ann Marne of the Pennsylvania State Police
- Completed proposed revisions to the 2011 FBI *Forensic and DNA Databasing Quality Assurance Standards (QAS)* that have been approved by SWGDAM and forwarded to the FBI Director for review and approval.
- Participating in community outreach opportunities to socialize the QAS revisions being proposed to the FBI Director.
- Addressing comments from the SWGDAM membership and invited guests on the QAS Guidance Document (containing what historically has been the discussion content of the QAS Audit Documents).
 - QA Committee Chair Jocelyn Carlson reviewed the new QAS Guidance Document at the SWGDAM Public Meeting of the FBI's National DNA Technical Leader Summit in Norman, OK (December 2018).



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 the *Quality Assurance Standards for DNA Databasing Laboratories* via electronic vote on June 1, 2018.
 - These draft QAS documents are posted on the Home Page of SWGDAM.org.
 - Both documents were forwarded to the FBI Director for review and approval on March 25, 2019.
- SWGDAM aligned the QAS Audit Documents with their respective proposed revised QAS standards and the SWGDAM Executive Board approved them via electronic vote on February 14, 2019.
 - These draft QAS audit documents are posted on the Home Page of SWGDAM.org.
 - Both documents were forwarded to the FBI Director for review and approval on March 25, 2019.
- SWGDAM is currently drafting a new QAS Guidance Document with the target for approval being its July 2019 SWGDAM Meeting.
 - This document will contain the explanatory information historically contained in the QAS Audit Documents.
 - SWGDAM will update this document annually based on feedback from users, the NDIS Custodian, and Chair of the NDIS Audit Review Panel.
- The FBI is coordinating with SWGDAM for a July 2019 publication of the FBI approved QAS documents with an effective date of January 2020 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 the National Institute of Standards and Technology
- Completed a *SWGDM Position Statement on Rapid DNA Analysis* that is available on the Publications page of SWGDAM.org (October 2017).
- Drafted standalone R-DNA QAS Standards for R-DNA testing in the booking station environment using existing field testing standards as models (e.g., breathalyzer, radar gun, etc.) to be used only for planned pilot testing.
 - The draft *Standards for the Operation of Rapid DNA Systems By Law Enforcement Agencies in the Booking Environment* to be used only for pilot testing were approved by the SWGDAM Executive Board via electronic ballot on February 25, 2019.
- Drafting a FBI Rapid-DNA Concept of Operations Document using the existing FBI Criminal Justice Information Systems Division (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.
 - SWGDAM has invited R-DNA pilot-specific Invited Guests to participate on the R-DNA Committee.



LR Verbal Scale Working Group

- The new *Recommendations of the SWGDAM Ad Hoc Working Group on the Reporting of Probabilistic Genotyping Results* were approved at the July 2018 Regular SWGDAM Meeting and are available on the Publications page of SWGDAM.org.
- The LR Verbal Scale Working Group has completed its tasking and has been dissolved (V.C.7).
- SWGDAM would like to thank Shawn Montpetit (Chair), Jerrilyn Conway, Peter Gill, Ted Hunt, Eugene Lien, Tamyra Moretti, Steven Myers, Joel Sutton, Susan Welti, Russell Vossbrink, and Lisa Schiermeier-Wood for their outstanding, sustained efforts in support of this critical SWGDAM tasking.



Lineage Marker

- Chair Dixie Peters of the University of North Texas Health Science Center, Vice Chair Ann Marie Gross of the Minnesota Bureau of Criminal Apprehension
- 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.
- Assisting the transition of the holdings of the US YSTR Database to the Y Haplotype Reference Database (YHRD) for Y haplotype profile and match probability estimation.



Future Business



Rapid DNA Testing

- SWGDAM nominated participants for ASCLD's *ad hoc* Task Force on Rapid DNA which consists of 3 subcommittees.
 - The goal of the committee is to develop policies and best practices that can serve as a template for jurisdictions to enable quicker, more uniform and more effective implementation.
 - Law Enforcement External – Tom Callaghan (Member)
 - Crime Lab Internal – George Li (Invited Guest)
 - Mass Disaster/Victim ID – Patty Aagaard (FBI representative)
- SWGDAM has published a Position Statement on Rapid DNA Analysis which is available on SWGDAM.org on the Publications page.
- Will propose a 3rd Quality Assurance Standard (QAS) document for R-DNA testing in non-laboratory settings for consideration by the FBI Director.
 - The draft *Standards for the Operation of Rapid DNA Systems By Law Enforcement Agencies in the Booking Environment* to be used only for pilot testing were approved by the SWGDAM Executive Board via electronic ballot on February 25, 2019.



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 (EB) on what, if any, potential action SWGDAM should take on this topic.
 - The Committee held a discussion regarding contextual bias during its first teleconference and recommended that SWGDAM act to discuss this topic advising that "Because this is such a broad topic and applies to all forensic disciplines, ...SWGDM issue a Communication recommending standard practices to avoid contextual bias specifically for DNA casework."
- Based on this recommendation, the SWGDAM EB endorsed the formation of a Contextual Bias Working Group at its May 2017 teleconference.
- The convening of this Working Group has been tabled by the SWGDAM Chair until SWGDAM has completed its work related to proposed changes to the 2011 FBI Quality Assurance Standards (QAS).



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 continues to discuss reconsideration of the 2013 recommendations now that the expanded CODIS core loci have been implemented.
- As a member of the FBI's NDIS Procedures Board, the SWGDAM Chair continues to liaison with the FBI and NDIS Board regarding convening a SWGDAM Working Group to reconsider this topic.

www.swgdam.org

Since July 2015: Almost 74,000 visits



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 SWGDAM, 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 SWGDAM

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

Meeting Meetings

SWGDM Regular Meeting
July 9-11, 2019

SWGDM Regular Meeting
January 7-9, 2020

Past Meetings

SWGDM Regular Meeting
January 8-10, 2019
Cancelled due to the Federal
Government Shutdown





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- Home Page
 - About SWGDAM
 - Includes links to SWGDAM participation surveys
 - Includes links to SWGDAM history information
 - Updates
 - Upcoming and Past Meetings
 - Redirects to About Us, Publications, Public Comments, and Links Pages
- About SWGDAM Redirect
 - Bylaws Page
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 - Includes a link to current SWGDAM Committee participants
 - Includes a link to current SWGDAM Committee activities
 - Members Page



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- Publications Redirect
 - SWGDAM Documents, SWGDAM Communications, Quality Assurance Standards Documents, and Miscellaneous Communications
 - Meetings Page
 - Includes links to Semi-annual Reports and Chair Reports by year
- Public Comments Redirect
 - Serves as the public comment portal
 - FAQ Page
- Contact Redirect
 - Serves as the general inquiry portal
 - Links Page
 - Government agencies
 - Organizations
 - Other Scientific Working Groups (SWG)
 - SWGDAM content webinars, etc.



www.swgdam.org

- SWGDAM continues to receive suggestions regarding the functionality and performance of SWGDAM.org.
- The site is currently maintained with no formally obligated funding by NIST using existing IT resources and staff for whom the website is an ancillary task. All website ideas are discussed but implementation must be balanced against the realities of these constraints.
- The 2017-2020 SWGDAM Executive Board continues to review SWGDAM's current communication strategies and discuss the feasibility of potential improvements and/or alternatives.



Contact Us

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or

SWGAM.org

