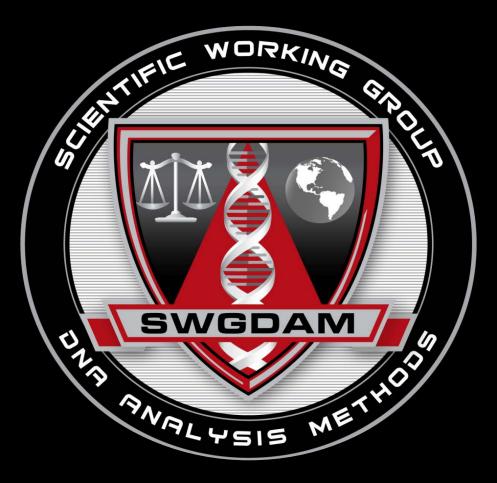
CODIS Meeting, November 2016



SWGDAM Update



Table of Contents

- About Us
- Meetings
- Recent Business
- Committee Actions
- SWGDAM.org
- The Future



About Us



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.



Organization

- Chair: Tony Onorato
- Vice Chair: Russell Vossbrink
- Members are technical leaders, CODIS Administrators, or like scientists from local, state and federal crime laboratories
 - 27 Regular Members
 - 3 year membership term(s)
- Meet twice a year in January and July
- Invited Guests may be invited to 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)



SWGDAM Membership

- Angelo Della Manna
- Thomas Callaghan
- Chris Carney
- Ann Marie Gross
- Bruce Heidebrecht
- Brian Hoey
- **Deedra Hughes**
- Elizabeth Johnson
- Susannah Kehl

- George Li
- Eugene Lien John Planz lacksquare
- Beth Ann Marne Dixie Peters •
- Amy McGuckian Juliet Rolando
- Scott **McWilliams**
- Jeff Nye •
- Gary Molina
- Shawn • Montpetit
- Tamyra Moretti
- **Steven Myers** ${\color{black}\bullet}$

- Tony Onorato
- Gary Sims
- Joel Sutton
- John Tonkyn
- Russell Vossbrink



Retirements

- SWGDAM would like to thank Gary Sims for his many years of dedicated service and wish him well as he retires from the California Department of Justice.
- -SWGDAM would like to thank Taylor Scott for his many years of dedicated service and wish him well as he moves from the Illinois State Police to his new role with the FBI Laboratory's CODIS Unit.



New Members

- In accordance with the SWGDAM Bylaws (II.C.1), the SWGDAM Membership Committee has recommended the following new individuals to the SWGDAM Chair for Regular Membership.
 - Scott McWilliams Wyoming State Crime Laboratory
 - Gary Molina Texas Department of Public Safety
 - Shawn Montpetit San Diego Police Department
 - Dixie Peters University of North Texas Health Science Center
- SWGDAM would like to congratulate Scott, Gary, Shawn, and Dixie on their appointments.



New Invited Guests

- In accordance with the SWGDAM Bylaws (II.D), the SWGDAM Chair with the concurrence of the SWGDAM Executive Board has appointed the following individuals as Invited Guests to participate in Regular SWGDAM Meetings
 - Ted Hunt Kansas City Prosecuting Attorney's Office will be joining the Next Generation Sequencing Working Group
 - Taylor Scott FBI CODIS Unit will be joining the Autosomal STR Committee
 - Richard Wilson Chief of the FBI's CODIS Unit will be joining the Rapid-DNA Committee
- SWGDAM would like to welcome Ted, Taylor, and Richard and congratulates them on their appointments



SWGDAM Participation

- 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.
- July 2015: 66 participants with 7 international, 21 domestic federal, and 38 domestic state and local attendees.
- January 2015: 58 participants with 5 international, 20 domestic federal, and 33 domestic state and local attendees.
- July 2014: 64 participants with 6 international, 25 domestic federal, and 33 domestic state and local attendees.
- January 2014: 57 participants with 1 international, 27 domestic federal, and 29 domestic state and local attendees.



FBI Participation

- As the FBI continues to adjust to it recent leadership changes in its DNA Program, the following FBI scientists will be realigned after the July 2016 SWGDAM Meeting to maximize their contributions
 - Richard Wilson has been appointed to the R-DNA Committee
 - Tim Zolandz will be moving from the Autosomal STR to the Y-STR Committee
 - Susannah Kehl will be moving from the EDMI Committee to the NGS Working Group
 - Tamyra Moretti will be moving from the Y-STR to the Autosomal STR Committee
 - Tom Callaghan will be moving from the NGS Working Group to the R-DNA Committee
- The following FBI scientists will remain in their current Committees and Working Groups
 - Jerrilyn Conway-Autosomal STR Committee
 - Darrel Oubre, Lisa Grossweiler, and Juliet Rolando-CODIS Committee
 - Jocelyn Carlson and Clark Jaw-QA Committee
 - Jodi Irwin-NGS Working Group



Committees

- Autosomal STR
- CODIS
- Enhanced Detection Methods and Interpretation (EDMI)
- Next Generation Sequencing Working Group
- Rapid DNA (R-DNA)
- Sexual Assault Kit Evidence Processing Working Group
- Quality Assurance (QA)
- -Y-STR



Meetings



Recent Meetings

- Three SWGDAM Meetings to be held in 2016
 - January 12-14, 2016
 - July 12-14, 2016
 - November 14, 2016 (FBI TL Summit Update)
- Three SWGDAM Meetings to be held in 2017
 - January 10-12, 2017
 - July 11-13, 2017
 - November, 2017 (FBI TL Summit)



July 2016 Meeting

- Held at the Hilton Garden Inn in Fredericksburg, VA on January 12-14, 2016.
- 69 participants with 9 international, 24 domestic federal, and 36 domestic state and local attendees.
- The Technical Session focused on Next Generation Sequencing (NGS) and included presentations by NGS chemistry and instrument vendors.



Business Conducted

- The Autosomal STR Committee reviewed its draft of the proposed revisions to the 2011 SWGDAM STR Interpretation Guidelines that incorporated the comments of the SWGDAM Body.
- The Enhanced Detection Methods and Interpretation Committee reviewed its draft of the new Contamination Prevention and Detection Guidelines for Forensic DNA Laboratories that incorporated the comments of the SWGDAM Body.
- The SAFER Sexual Assault Kit Working Group reviewed its draft of the new SWGDAM Guidelines for the Processing of Sexual Assault Kits in a Laboratory that incorporated the comments of the SWGDAM Body.
- Update Session included: ENSFI, ISFG, NCFS, NIJ, NIST, and OSAC.



Roundtable Topics

- Using probabilistic genotyping on DNA casework
- Probabilistic genotyping approaches to CODIS and proficiency tests
- Eliminating sexual assault kit backlogs
- Validation of GlobalFiler and GeneMarker HID analysis software
- Typing of challenging samples: Korean War Unknowns
- Reporting on the presence of semen from DNA data



January 2016 Meeting

- Held at the Hilton Garden Inn in Fredericksburg, VA on January 12-14, 2016.
- 68 participants with 6 international, 25 domestic federal, and 37 domestic state and local attendees.
- The Technical Session was a Committee of the Whole discussion of select sections of the FBI QAS led by QA Committee members: Standards 5, 8, 9, 13, 16, and 17.



Business Conducted

- The SAFER Sexual Assault Kit Working Group reviewed its draft of the new SWGDAM Guidelines for the Processing of Sexual Assault Kits in a Laboratory.
- The Autosomal STR Committee reviewed its draft of the proposed revisions to the 2011 SWGDAM STR Interpretation Guidelines.
- Update Sessions included: NIST, OSAC, NCFS, NIJ, ICNP, and ISFG.



Roundtable Topics

- Fst values for autosomal STR interpretation
- Reporting on the presence of semen from DNA data
- Retroactive statistical analysis review
- Familial searching and technical leader qualifications questionnaire
- Using the QIAgen QIAcube for differentials
- Probabilistic genotyping proficiency testing



Recent Business



Executive Board

- The SWGDAM Executive Board (EB) held teleconferences on February 1, 2016; March 7, 2016; April 4, 2016; May 2, 2016; June 6, 2016; October 3, 2016; and November 7, 2016.
- The EB currently has a standing teleconference scheduled for the first Monday of the month at 3 pm ET.
- Committee Chairs routinely provide updates to the EB at the monthly teleconferences.
- The Chair and Vice Chair would like to thank all of the SWGDAM EB Members and Committee Chairs for continually making the time for these critical discussions.



Autosomal STR Guidelines

SWGDAM Interpretation Guidelines for Autosomal STR Typing by Forensic DNA Testing Laboratories

- The STR Committee reviewed the proposed revisions with the SWGDAM Body at the January 2016 Regular SWGDAM Meeting.
- The SWGDAM Executive Board approved the draft for forwarding to the SWGDAM Body for technical review at its March 2, 2016 teleconference.
- The SWGDAM Executive Secretary electronically forwarded the draft for technical review on March 9, 2016 with the technical review period ending April 8, 2016.
- The STR Committee made its final report and the SWGDAM Body and Executive Board approved the draft for posting on SWGDAM.org for public comment at the July 2016 Regular SWGDAM Meeting.
- The draft was posted for public comment on SWGDAM.org from July 21, 2016 to September 19, 2016.
- The STR Committee continues to adjudicate the 122 public comments received.



SAK Processing Guidelines

SWGDAM Guidelines for the Processing of Sexual Assault Kits in a Laboratory

- The SAFER Sexual Assault Kit Processing Working Group reviewed the proposed revisions with the SWGDAM Body at the January 2016 Regular SWGDAM Meeting.
- The SWGDAM Executive Board approved the draft for forwarding to the SWGDAM Body for technical review at its March 7, 2016 teleconference.
- The SWGDAM Executive Secretary electronically forwarded the draft for technical review on May 19, 2016 with the technical review period ending June 17, 2016.
- The SAK WG made its final report and the SWGDAM Body and Executive Board approved the draft for posting on SWGDAM.org for public comment at the July 2016 Regular SWGDAM Meeting.
- The draft was posted for public comment on SWGDAM.org from July 25, 2016 to September 2, 2016.
- The STR Committee continues to adjudicate the 41 public comments received.



Contamination Guidelines

SWGDAM Contamination Prevention and Detection Guidelines for Forensic DNA Laboratories

- The Enhanced Detection and Interpretation Committee reviewed the proposed revisions with the SWGDAM Body at the January 2016 Regular SWGDAM Meeting.
- The SWGDAM Executive Board approved the draft for forwarding to the SWGDAM Body for technical review at its March 7, 2016 teleconference.
- The SWGDAM Executive Secretary electronically forwarded the draft for technical review on May 25, 2016 with the technical review period ending June 24, 2016.
- The EDMI Committee made its final report and the SWGDAM Body and Executive Board approved the draft for posting on SWGDAM.org for public comment at the July 2016 Regular SWGDAM Meeting.
- The draft was posted for public comment on SWGDAM.org from July 25, 2016 to September 2, 2016.
- The EDMI Committee continues to adjudicate the 77 public comments received.



Committee on Detail: Interpretation of Historical Data

- Committee on Detail: Historical Data Interpretation
 - Tasked 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 (whether they chose to reinterpret that data or simply use the historical data for comparison purposes.
 - Drafted a SWGDAM Clarification Letter to provide additional guidance for the QAS for analysts that need to reevaluate old cases completed with DNA amplification test kits for which current analysts are not qualified.
 - Draft letter provided via e-mail to the SWGDAM Body for a 2 week comment period on May 4, 2016.
 - Draft letter approved by the SWGDAM Executive Board for publication at its June 6, 2016 teleconference.
 - Approved letter distributed via SWGDAM.org and provided via E-mail to DNA Technical Leaders and CODIS administrators on June 9, 2016.
 - Advised the DNA accreditation agencies and Organization of Scientific Area Committees (OSAC) via e-mail on June 13, 2016.



Committee on Detail: Standard 8 and 9 Review

- A Committee on Detail has been formed to assist the QA Committee by focusing on Standards 8 and 9 with the goal being to review these standards and make proposed changes that can then be provided to the QA Committee as a near completed product.
 - This COD has been convened to: 1) allow SWGDAM participants identified by the SWGDAM EB as validation SMEs to directly assist the QA Committee to review and propose changes to Standards 8 and 9 and 2) put in place another parallel effort assisting the QA Committee to expedite its overall QAS review efforts.
 - The members of this COD are: Ann Marie Gross, Susannah Kehl, Bill Hudlow, and Jason Kokoszka



Committee on Detail: Standard 17 Review

- The CODIS Committee is serving as a Committee on Detail to assist the QA Committee by focusing on Standard 17 with the goal being to review these standards and make proposed changes that can then be provided to the QA Committee as a near completed product.
 - This COD has been convened to put in place another parallel effort assisting the QA Committee to expedite its overall QAS review efforts.
 - The CODIS Committee also routinely reviews QA Committee revised standards prior to SWGDAM Committee of the Whole reviews.



LR Verbal Scale Working Group

- Convened to provide interim guidance for employing a verbal equivalents likely via a letter or white paper that either cites an existing scale or provides a new SWGDAM DNA-specific one or SWGDAM/ENFSI DNA-specific one.
 - The revised 2016/2017 autosomal STR interpretation guidelines will likely endorse the use of a verbal scale.
 - ENFSI already endorses LRs and has a recommended verbal scale for all forensic disciplines in its <u>Guidelines for Evaluative Reporting</u> 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 18-24 months (2018/2019).



NIJ Sexual Assault Response Document

- The National Institute of Justice (NIJ) electronically forwarded a draft of its new *Best Practices for a National Sexual Assault Response: A Systems-Wide Approach* document for review by its SAFER Working Group members on May 18, 2016 with the review period ending May 27, 2016.
- The SWGDAM SAFER SAK Working Group attended an in-person NIJ SAFER Working Group Meeting in Washington, DC on June 22-14, 2016 to finalize the draft of its *Best Practices for a National Sexual Assault Response: A Systems-Wide Approach* document for dissemination for peer review by select external stakeholders in the sexual assault response community.
- The NIJ SAFER Editorial Review Board met in Washington, DC on October 19-21, 2016 to adjudicate the public comments received and finalize the document. At the request of NIJ, Amber Carr chaired this review board and Dawn Herkenham served as its Executive Secretary.
- SWGDAM would like to thank Amber and Dawn for their outstanding support of this critical SWGDAM tasking through their service on both Working Group and on the Editorial Review Board.



Biology/DNA SAC Relationship



OSAC Interactions

- In collaboration with the Biology/DNA Scientific Area Committee (SAC), SWGDAM has established an OSAC Representative.
 - This representative is considered a SWGDAM Invited Guest and, in accordance with the SWGDAM Bylaws, has voting privileges for routine SWGDAM committee business (however, not for final votes on SWGDAM work products).
 - Dr. John Butler of NIST is currently SWGDAM's OSAC Representative.
 - Dr. Butler has a standing invitation to present at the Update Session of SWGDAM Regular Meetings to provide information to or receive feedback from SWGDAM.
- 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.



OSAC Interactions

- All draft SWGDAM documents are submitted for review and comment to the Biology/DNA SAC and all approved SWGDAM guidelines and standards are provided to the OSAC.
- SWGDAM will continue to review its current business process for drafting and approving its work product which are formally captured in its Bylaws and, to the extent possible, incorporate elements of the review process designated for the SACs.



Website

SWGDAM.org

www.swgdam.org



SWGDAM 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

SWGDAM 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

SWGDAM Regular Meeting July 12-14, 2016 <u>Agenda</u>

SWGDAM Regular Meeting January 10-12, 2017

Past Meetings

SWGDAM Regular Meeting January 12-14, 2016 SWGDAM January 2016 Semi-Annual Report

SWGDAM Regular Meeting



www.swgdam.org

F5086275	UNCLASSIFIED		
	WENT OF April 10 Month Selection April 10 Month Seals		
http://www.swgdam.org/	P → C swgdam	Sury 10 - 11, 2014	☆☆ 🥸
	Laboratories; (2) to serve as a forum to discuss, share, and evaluate	SWGDAM July 2014 Semi-Annual	~
	forensic biology methods, protocols, training, and research to enhance forensic biology services; and (3) to recommend and conduct research to	Report	
	develop and/or validate forensic biology methods. We hold semi-annual	SWGDAM Regular Meeting	
	meetings in January and July and our Committees meet more frequently	January 7 - 9, 2014	
	as issues arise.	SWGDAM January 2014 Semi-	
	MORE	Annual Report	
	MIORE	SWGDAM Regular Meeting	
	Updates	July 16 - 18, 2013	
	oputtoo	SWGDAM July 2013 Semi-Annual	
	New!! SWGDAM Clarification on the Reinterpretation of Data Typed with	Report	
	Legacy Amplification Test Kits	SWGDAM Regular Meeting	
	<u> </u>	January 15 -17, 2013	
	New!! SWGDAM has empanelled a Committees on Detail to review	SWGDAM January 2013 Semi-	
	Standards 8 and 9 of the National DNA Quality Assurance Standards (QAS) and to advise SWGDAM on potential clarifications and/or recommended	Annual Report	
	changes to these current standards on validation and analytical methods.	SWGDAM Regular Meeting	
		January 17 - 19, 2012	
	New!! The revisions made to the 2010 SWGDAM STR Interpretation	SWGDAM January 2012 Semi-	
	Guidelines are currently with the SWGDAM Body for review and comment (Section V.A.3) and should be available for public comment sometime in	Annual Report	
	April or June 2016!	SWGDAM Regular Meeting	
	· • · · · · · · · · · · · · · · · · · ·	July 12 - 14, 2011	
	New!! SWGDAM Guidelines for the Validation of Probabilistic Genotyping	SWGDAM July 2011 Semi-Annual	
	<u>Systems</u>	Report	
		HEL WORKING	
		🖉 🕺 🛣 🕺 🐑 🐧	
		d SWGDAM	
		MALYSIS ME	
		search	
		Web Search	

0

f 🎔

▲ ()) 1:50 PM 6/28/2016



Committee Work



Autosomal STR

- Adjudicating 122 public comments on the SWGDAM Interpretation Guidelines for Autosomal STR Typing by Forensic DNA Testing Laboratories.
- Will finalize revision of the STR Interpretation Guidelines and forward to the SWGDAM Executive Board.
- Participating in community outreach opportunities to socialize the 2016/2017 revised STR Interpretation Guidelines (e.g., FBI TL Meeting, ASCLD Webinar, etc.).
- Will begin revision of the STR Interpretation Guidelines to incorporate probabilistic genotyping guidance with a developmental target of 18-24 months.



CODIS

- Serving as a Committee on Detail to assist the QA Committee by focusing on Standard 17 with the goal being to review these standards and make proposed changes that can then be provided to the QA Committee as a near completed product.
- Reviewing QA Committee revised standards prior to SWGDAM Committee of the Whole reviews.
- Discussing proposed revisions of QAS, Automated Hit Counting, CODIS 8.0 training, definition of Forensic Unknown, and updates to the NDIS configurations documents.



EDMI

- Adjudicating 77 public comments on the SWGDAM Contamination Prevention and Detection Guidelines for Forensic DNA Laboratories.
- Will finalize the new Contamination Prevention and Detection Guidelines and forward to the SWGDAM Executive Board.
- The EDMI Committee will be merged with the SAFER SAK Processing Working Group to form a standing Laboratory Operations Committee that will be initially tasked with revising the SWGDAM Validation Guidelines for DNA Analysis Methods.



NGS Working Group

- Adjudicating 8 comments from the SWGDAM Body's peer review on the NGS-specific revisions to the SWGDAM Validation Guidelines for DNA Analysis.
- Will finalize NGS-specific revisions to the Validation Guidelines and forward to the SWGDAM Executive Board.
- Will begin drafting NGS Interpretation Guidelines.



Quality Assurance

- Reviewing 2011 FBI National Quality Assurance Standards (QAS) on behalf of SWGDAM to propose revisions to the FBI Director.
- Participating in community outreach opportunities to socialize the proposed QAS revisions and format changes(e.g., FBI TL Meeting).
- Holding biweekly/weekly Webinars.
- Managing the activates of 2 Committee on Details to assist in the review of Standards 8, 9, and 17.



Rapid-DNA

- Will draft a standalone QAS document for R-DNA testing in the booking station environment using existing field testing standards as models (e.g., breathalyzer, radar gun, etc.)
- Will draft a FBI Rapid-DNA Concept of Operations document using the existing FBI CJIS Staff Paper as a model.
- Will draft a plan for a Rapid-DNA pilot project for testing/implementing/using this technology in the booking environment.



SAFER SAK Working Group

- Adjudicating 41 public comments on the SWGDAM Guidelines for the Processing of Sexual Assault Kits in a Laboratory.
- Will finalize the new SAK Processing Guidelines and forward to the SWGDAM Executive Board.
- The SAFER SAK Committee will be merged with the EDMI Committee to form a standing Laboratory Operations Committee that will be tasked initially with revising the SWGDAM Validation Guidelines for DNA Analysis Methods.



Y-STR

- Will forward its revisions to the 2014 Interpretation Guidelines for Y-Chromosome STR Typing by Forensic DNA Testing Laboratories to the SWGDAM Executive Board for review.
- Will continue to develop guidelines for the interpretation of Y-STR mixtures (no Y-haplotype mixture guidance is contained in the current draft being reviewed by the SWGDAM Executive Board).
- SWGDAM plans to transition the Y-STR Committee into a more broadly tasked Haplotype Testing Committee upon its development of guidance for Y-STR mixtures.



Contact Us

Tony Onorato 703-632-7572 <u>Anthony.Onorato@ic.fbi.gov</u>

