

Final Minutes
Scientific Advisory Committee Meeting
May 6, 2008
DFS Central Laboratory, Classroom 1

Committee Members Present:

Dr. Jose R. Almirall
Mr. Joseph Bono
Dr. Dale Carpenter
Dr. Arthur Eisenberg
Mr. Barry Fisher, Chair
Ms. Deborah Friedman
Dr. Dan Krane
Mr. Peter Marone
Dr. Alphonse Poklis
Dr. Norah Rudin
Mr. Kenneth Smith

Committee Members Absent:

Dr. Frederick Bieber
Mr. Dominic Denio

Staff Members Present

Ms. Wanda Adkins, Office Manager
Ms. Elizabeth Ballard, Forensic Scientist Forensic Biology
Mr. Jeffrey Ban, Central Laboratory Director
Dr. David Barron, Technical Services Director
Ms. Katie Carlson, Administrative Specialist, Director's Office
Ms. Angie Cunningham, Forensic Scientist, Forensic Biology
Ms. Leslie Ellis, Human Resources Manager
Ms. Michele Gowdy, Department Counsel
Dr. Susan Greenspoon, Forensic Molecular Biologist
Ms. Linda Jackson, Controlled Substances Section Chief
Mr. Bradford Jenkins, Section Chief Forensic Biology
Mr. Ronald Layne, Director of Administration and Finance
Ms. Alka Lohmann, Breath Alcohol Section Chief
Ms. Carisa Onorato, Administrative Specialist Breath Alcohol
Mr. Kevin Patrick, Western Laboratory Director
Mr. John Przybylski, Section Supervisor, Controlled Substances
Mr. Stephen Rodgers, Forensic Scientist, Forensic Biology
Mr. Brian Shannon, Forensic Scientist, Forensic Biology
Mr. Steven Sigel, Deputy Director
Mr. Robert Steiner, Forensic Scientist, Controlled Substances

Ms. Susan Uremovich, Eastern Laboratory Director
Ms. Lisa Schiermeier-Wood, Section Supervisor, Forensic Biology
Ms. Amy Wong, Northern Laboratory Director

Call to Order:

Mr. Fisher called the meeting to order at 9:00 a.m.

Mr. Fisher acknowledged Wanda Adkins as the temporary secretary for the meeting.

Adoption of Agenda

Mr. Fisher asked if there were any additions or changes to the draft agenda, he moved to adopt the agenda and it was adopted by unanimous vote.

Freedom of Information Act Presentation

Mr. Fisher had requested that Mr. Charles A. Quagliato, Assistant Attorney General for the Department of Forensic Science give a presentation to the Scientific Advisory Committee on the Virginia Freedom of Information Act. Mr. Quagliato gave handouts to the Committee on Access to Public Meetings under FOIA. There was general discussion between the Scientific Advisory Committee and Mr. Quagliato regarding FOIA. Mr. Quagliato offered to provide further guidance to the Scientific Advisory Committees in writing at a later date.

Adoption of Minutes

Mr. Fisher asked if there were any changes that needed to be made to the draft minutes from the January 8, 2008 meeting. Dr. Krane and Dr. Rudin made suggested changes to the minutes. A motion was made to accept draft minutes with the suggested changes and they were adopted unanimously.

Chairman's Report

At the January 9, 2008 Forensic Science Board meeting, the Scientific Advisory Committee was tasked to review the new programs DFS was implementing, specifically the Mitochondrial-DNA and Y-STR testing. DFS further requested that the Scientific Advisory Committee review two additional programs, the new Breath Alcohol instrumentation and the AccuTOF-DART that the Department of Forensic Science was implementing. Chairman Fisher explained to the Scientific Advisory Committee how the subcommittees were formed. The subcommittees' task was to advise the entire Scientific Advisory Committee on these programs and therefore the makeup of each subcommittee included subject matter experts that were not on the Scientific Advisory Committee.

Mr. Fisher stated that the Forensic Science Board gave approval for the Scientific Advisory Committee to meet in other Department of Forensic Science locations in the State of Virginia.

Director's Report

Mr. Marone introduced Mr. Brad Jenkins as the new DNA Section Chief for the Department of Forensic Science. He began in this position on March 10, 2008 after a twelve week nationwide search. Mr. Jenkins received his undergraduate and masters degree in biology from the University of North Carolina at Wilmington. Mr. Jenkins joined the Department in 1994, was promoted to group supervisor in 2004, selected to serve as the section supervisor and technical leader for the mitochondrial-DNA unit in 2006.

Grant Update: The Department is reviewing and applying for:

- NIJ Research and Development in the Area of Controlled Substances Detection and Analysis
- NIJ Post-conviction Testing Assistance Program - \$4,520,294.61
- DMV Highway Safety Project - \$40,674.47
- Coverdell Forensic Science Improvement Program - \$279,276.00 which will be shared by the Office of the Chief Medical Examiner and the Department of Forensic Science.

Breath Alcohol Instrumentation: The first shipment of instruments has arrived and the staff has attended training by the manufacturer. It is expected that the first instruments will be placed in the field immediately after the Scientific Advisory Committee reviews and approves the final protocols.

Legislation: Issues that were dealt with during the 2008 General Assembly:

- Salvinorin A as a Schedule I hallucinogen (HB21)
- Oripavine & Lisdexamfetamine as Schedule II Controlled Substances (HB823)
- Added to the Sex Offender Registration Statute that all sex offenders must be placed in the DNA Data Bank (HB902)
- Budget language that requires the Forensic Science Board to inform all persons convicted due to criminal investigations that evidence exists and is available for testing.

Post-conviction project: All 534,000 case files have been reviewed.

- 4,910 – cases exist with evidence
 - 2,166 – cases with evidence and named suspect
 - 2,000 – case files reviewed for post-conviction testing (known samples)
- To date a number of cases have been sent to the laboratory and we have a few hundred cases are waiting to be sent to the private laboratory.
Almost 1,200 cases reviewed and determined ineligible (individual not convicted or case nolle prossed or property crimes)

The Department of Forensic Science will be writing reports on all cases that are being tested.

New Technology: The Department of Forensic Science has decided to move toward capillary electrophoresis for DNA.

Contextual Bias: The Department of Forensic Science requested that this topic be added to the agenda of the August, 2008 meeting.

Election of Chairman

Mr. Bono nominated Mr. Fisher to be the Chair of the Forensic Scientist Advisory Committee for another year, seconded by Dr. Eisenberg. Dr. Poklis made motion to close nomination, seconded by Dr. Almirall. Dr. Poklis made a motion to vote by acclamation, seconded by Dr. Almirall the original motion to elect Mr. Fisher as Chair passed by unanimous vote.

Subcommittee Reports

Y-STR Subcommittee – Dr. Krane addressed the Scientific Advisory Committee regarding the subcommittee report on the review of the Y-STR. Members of the subcommittee were Dr. Robin Cotton, Ms. Ann Marie Gross and Dr. Dan Krane. One-quarter of the validation studies were provided to the subcommittee at the meeting and the remainder were provided prior to the meeting. The subcommittee began by considering each of the validation studies individually. The subcommittee felt that additional work needed to be done regarding the interpretation of mixtures. The subcommittee spent approximately 45 minutes discussing the existing mixture validation and decided to table the issue until more data was available. The subcommittee also discussed the appropriate phrasing of a report for those circumstances where a mixture was observed but major and minor contributor could not be separated. Other issues were also discussed with the laboratory, including the need for a theta correction to be used (to correct for population substructure) and the use of an exact approach (rather than an approximation that assumes a two-sided distribution) to generating confidence intervals when small numbers of matching Y-STR haplotypes were observed in existing databases. Finally, it was noted there was nothing explicit in the protocols that were presented to the subcommittee that served as a safeguard against contextual effects. The subcommittee anticipates that the Y-STR protocols will be ready for review and approval by the whole Scientific Advisory Committee after the laboratory has had an opportunity to do some additional validation work. Considering the numerous additional recommendations by the subcommittee, they agreed to meet again for one additional day prior to the next Scientific Advisory Committee meeting.

Mitochondrial-DNA Subcommittee – Dr. Rudin addressed the Scientific Advisory Committee regarding the subcommittee report on the review of the Mitochondrial-DNA. Members of the subcommittee were Carna Meyer, Catherine Knutson and Dr. Norah Rudin. Dr. Rudin prepared a report which is attached as Addendum “A.”

AccuTOF – DART Subcommittee – Mr. Bono addressed the Scientific Advisory Committee as a subcommittee member and provided the report on the review of the AccuTOF-DART. Members of the subcommittee were Dr. Dale Carpenter and Mr. Joseph Bono. Mr. Bono began by stating that the instrument methodology is currently for screening purposes only at the Department of Forensic Science. The validation criteria were based upon the SWGDRUG guidelines of sensitivity, reproducibility, and selectivity which is an international standard. A blind comparison study was conducted on 553 samples that were later confirmed by GC/MS.

The selectivity study, using pairs of drugs with the same empirical formulas, demonstrated that some pairs are easily distinguishable (such as methamphetamine and phentermine). For those pairs of drugs that are not easily distinguishable with current parameters, the DART is an excellent screening tool. At this point it cannot be used as a category A technique, which is defined in the SWGDRUG guidelines as a methodology that allows an examiner to positively identify a controlled substance. The examiners in the Department have received training in theory and practical use of the instrument. Ultimately, the subcommittee explored the positive aspects as well as potential negative aspects and determined that any of the latter were negated by the fact that the DART is currently being used as a screening method. The recommendation of the subcommittee that reviewed this instrumentation was that the AccuTOF-DART be allowed to be used as a screening method within the Virginia Department of Forensic Science. There was a motion for the Scientific Advisory Committee to make this recommendation, it was seconded by Dr. Poklis and accepted by unanimous vote

Breath Alcohol Instrumentation Subcommittee - Dr. Carpenter addressed the Scientific Advisory Committee regarding the breath alcohol instrumentation. Members of the subcommittee were Dr. Dale Carpenter and Dr. Alphonse Poklis. The subcommittee met and received the status report on the breath alcohol instrumentation, acquisition and implementation from the Department of Forensic Science. The instrument that was selected was found by the subcommittee to be appropriate. The Breath Alcohol Section has not finalized their protocols and thus another review was suggested prior to the next meeting before final approval.

Mr. Fisher felt that the Scientific Advisory Committee had a consensus that the existing people on the subcommittees shall be asked to come back to the next meeting to complete their tasks. Chairman Fisher asked if other members of the Scientific Advisory Committee wanted to participate on the existing subcommittees. Ms. Friedman and Dr. Eisenberg offered to serve and it was suggested that Dr. Bieber be offered an opportunity to participate as well. Ms. Friedman requested that all validation and large volume materials be sent to the Scientific Advisory Committee at least 30 days in advance.

By-Laws Amendment – Chairman Fisher suggested that amendments to the By-Laws may be considered, but deferred this subject to the next meeting on August 5, 2008 to give the Scientific Advisory Committee members time to review the By-Laws.

Public Comment

Public Comment was taken.

Next Meeting – August 5, 2008 pending any changes by the Forensic Science Board, it was requested by Dr. Rudin that the meeting be changed to accommodate subcommittee members who must be in Richmond by 8:00am Monday. This will be brought to the attention of the Forensic Science Board.

The meeting was adjourned at 1:15 p.m.