

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18

Final - Minutes
Scientific Advisory Committee Meeting
October 14, 2014
Department of Forensic Science, Central Laboratory, Classroom 1

6
7

Committee Members Present

8 Randall E. Beaty
9 Maureen C. Bottrell
10 Robin W. Cotton, Ph.D.
11 Jo Ann Given
12 Linda C. Jackson
13 Alphonse Poklis, Ph.D.
14 Richard P. Meyers, Chair
15 Travis Y. Spinder
16 Jami J. St. Clair
17 Kenneth B. Zercie

18
19
20

Committee Members Absent

21 Leslie E. Edinboro, Ph.D.
22 John V. Planz, Ph.D.
23 Carl A. Sobieralski, Ph.D.
24

25
26

Staff Members Present

27 Wanda W. Adkins, Office Manager
28 D. Jeffrey Ban, Central Laboratory Director
29 David A. Barron, Ph.D., Deputy Director
30 Sabrina Cillesen, Physical Evidence Program Manager
31 John T. Griffin, Northern Laboratory Director
32 Katya N. Herndon, Chief Deputy Director
33 Bradford C. Jenkins, Biology Program Manager
34 Melissa S. Kennedy, Calibration and Training Program Manager
35 Alka B. Lohmann, Technical Services Director
36 M. Scott Maye, Chemistry Program Manager
37 Stephanie E. Merritt, Department Counsel
38 Susan Stanitski, Eastern Laboratory Director
39 Carisa M. Studer, Legal Assistant
40 Rebecca L. Wagner, Ph.D., Research Analyst

41
42
43

Call to Order

44 Richard P. Meyers, the Chair of the Scientific Advisory Committee (“Committee”), called the
45 meeting of the Committee to order at 10:00 a.m.
46

47 **Adoption of Agenda**

48
49 The Chair asked if there were any additions or changes to the draft agenda for the meeting. Being
50 none, Ms. Given moved to adopt the agenda, which was seconded by Dr. Poklis, and adopted by
51 unanimous vote of the Committee.
52

53 **Adoption of Minutes**

54
55 The Chair asked if there were any changes or corrections to the draft minutes from the April 29,
56 2014 meeting. Being none, Mr. Zercie moved to adopt the minutes from the April 29, 2014
57 meeting, which was seconded by Ms. St. Clair, and adopted by unanimous vote of the
58 Committee.
59

60 **Chair's Report**

61
62 The Chair welcomed Maureen Bottrell to her first Committee meeting. Ms. Bottrell was recently
63 appointed by the Governor to fill the Trace Evidence seat that was previously held by Jose
64 Almirall. Ms. Bottrell is a Forensic Geologist of the Trace Evidence Unit at the Federal Bureau
65 of Investigations. The SAC members and DFS staff introduced themselves.
66

67 The Chair indicated he did not have a separate report, but advised the Committee that Dr. Cotton
68 was unavailable to serve on the Forensic Science Board (FSB) as a representative of the SAC.
69 The Chair requested that Dr. Poklis serve on the FSB as a member of the SAC, and Dr. Poklis
70 agreed to represent the SAC on the FSB.
71

72 **DFS Director's Report**

73
74 Facilities: Director Jackson reported to the Committee that there was a formal Ground Breaking
75 Ceremony held at the Western Laboratory on July 28, 2014. Director Jackson welcomed guests
76 to the Ceremony, and Secretary of Public Safety and Homeland Security Brian Moran gave
77 remarks. The anticipated completion date for the new construction portion of the project is
78 December 2015. Renovations to the current Western Laboratory building will begin in January
79 2015 after the new construction is finished, with an estimated completion date of August 2016.
80

81 There was detailed planning money included in the budget for the expansion of the Central
82 Laboratory, which would allow the DFS operations currently housed across the street in Biotech
83 8 to be moved back into the expanded Central Laboratory. DFS is working with the Division of
84 Real Estate Services to obtain an extension of the lease for the space used by DFS and the
85 OCME in the Biotech 8 building. The current lease ends in 2016, and the expected completion
86 date of the Central Laboratory expansion project is sometime in 2019 at the earliest.
87

88 Budget Outlook: Director Jackson provided an overview to the Committee of the Department's
89 FY 15 budget with adjustments. She reported that the budget provided funding for four new
90 Forensic Scientist positions; two in Controlled Substances, one in Toxicology and one in
91 Forensic Biology. The FY 15 Budget also included the continued funding for prior year pay
92 raises, changes in benefit rates, and changes in other agency charges.

93
94 Director Jackson informed the Committee that the Office of the Attorney General approved the
95 Department's request for *Abbott* Settlement Forfeiture funds and the funds were awarded to DFS.
96 The Department will use the funding to purchase equipment that will increase capacity and
97 decrease turnaround time in the Chemistry Program Area. The funds have been appropriated and
98 the purchasing process has begun for the new equipment.

99
100 Additionally, there was a budget amendment approved that will fund three additional Forensic
101 Scientist positions to address critical backlogs in Forensic Biology. It is the intent of the General
102 Assembly that one of these positions be dedicated to processing the Physical Evidence Recovery
103 Kits (PERKs) submitted to the Department as a result of Senate Bill 658. DFS is prepared to
104 have all three positions analyze the PERKs if there is a large volume submitted as a result of the
105 inventory. These positions are currently in recruit.

106
107 Director Jackson reminded the Committee of the requirements of Senate Bill 658, the PERK
108 Inventory bill, which they had been told about at the April 29, 2014 meeting. Director Jackson
109 advised the Committee that, on October 10, 2014, the Department posted the inventory form and
110 other information about the PERK Inventory on the DFS website, and sent out the link to law
111 enforcement agencies. The deadline for law enforcement agencies to submit their inventory
112 forms to DFS is February 1, 2015. The Department's report of the inventory findings is due to
113 the General Assembly by July 1, 2015.

114
115 Director Jackson advised the Committee that the Department is facing budget reductions in light
116 of the economic situation the Commonwealth faces. The proposed budget reductions would take
117 5% in FY15, and then 7% in FY16. DFS has not yet been advised which budget reduction
118 strategies will be selected.

119
120 Grants: Director Jackson gave an overview of all current grants. There are six current grants; the
121 FY13 DNA backlog reduction grant, the FY14 DNA Capacity Enhancement and Backlog
122 Reduction Program Grant, the FY13 and FY14 Paul Coverdell Grants, the *Abbott* Settlement
123 Forfeiture Grant, and the FY15 Highway Safety Grant.

124
125 The Department continues to use the Paul Coverdell grants to provide continuing education and
126 training to DFS staff. As a cost-effective way of training staff, DFS has brought in outside
127 speakers to provide training to an entire section at one time.

128
129 The *Abbott* Settlement Forfeiture funds will be used to purchase equipment that will increase
130 capacity and decrease turnaround time in the Chemistry Program Area. A total of 18 instruments
131 will be purchased including 4 AccTOF-DART instruments for the Controlled Substance Section,
132 8 GC-MS instruments for the Controlled Substances and Toxicology Section, 4 LC/MS/MS
133 instruments for the Toxicology Section, 1 SEMEDS upgrade for the Trace Evidence Section, and
134 1 X-Ray Diffractometer for the Trace Evidence Section.

135
136 Finally, Director Jackson updated the Committee on the FY15 Highway Safety Grant, which will
137 be used to pay for costs associated with law enforcement personnel attending the class for initial
138 breath alcohol operator licensure and for Breath Alcohol Section scientific staff to receive

139 continuing education. In addition, a portion of the funding for the DMV grant will be used to
140 create and maintain a searchable online database of Breath Alcohol records. The searchable
141 database will not contain personal indentifying information of the subjects of the breath tests.
142

143 Agency Goals for 2014: Director Jackson reviewed the agency goals from 2014: decrease case
144 turnaround times for Controlled Substances and Toxicology, increase customer outreach,
145 increase continuing education opportunities for scientific staff, validate and implement DNA
146 multiplex kits in the Data Bank, and implementing the new Laboratory Information Management
147 System (LIMS).
148

149 Director Jackson explained to the Committee that the Department implemented a mandatory
150 overtime period for the Controlled Substances Section from September to October 2014. The
151 Department is also in the process of hiring additional staff for this section. In the Toxicology
152 Section, the training has been completed for several for newly hired staff members, and DFS has
153 been working with local jurisdictions to set DUI days in court. This helps by limiting the amount
154 of hours DFS staff are away from the laboratories and in court.
155

156 DFS has increased customer outreach by continuing to enhance the Department's website, which
157 included adding the Breath Alcohol records and separately posting portions of the Evidence
158 Handling Guide for Law Enforcement to assist with download times, and making that document
159 searchable. Currently, the Guide is one large document. The changes to how the Evidence
160 Handling Guide is posted were the result of one of the two customer surveys DFS conducted this
161 year.
162

163 Throughout the year, Department staff has provided presentations to many different groups,
164 including law enforcement organizations, Commonwealth's Attorneys and the Indigent Defense
165 Commission.
166

167 The Department has continued to provide training to staff throughout the year. A Department
168 wide supervisor training was completed on October 1, 2014.
169

170 Director Jackson informed the Committee that the Department does not have a completion date
171 for the new LIMS at this time, but it is a continuing project.
172

173 DFS also began posting certain Breath Alcohol records on its website starting June 6, 2014.
174 The Breath Alcohol section receives 80 to 100 requests for its records from attorneys each week.
175 The Department has not seen a decrease in requests since the records have gone online, but DFS
176 is working to expand the information posted online by using DMV Highway Safety Grant funds
177 to make the additional records requested by attorneys available online with identifying
178 information redacted.
179

180 Workload/Backlog: Director Jackson presented the Department's statistics in quarterly format
181 using graphs reflecting cases received, cases completed, the caseload, and the average number of
182 days in the system for each section.
183

184 Director Jackson brought to the Committee's attention the Controlled Substances Section's
185 statistics. She noted that there are two examiners who recently completed training, and there are
186 four newly hired examiners. Two of the new examiners do not have previous experience and
187 will have to be fully trained. The other two new examiners were previously qualified examiners
188 in other laboratories and will have shorter training periods.

189
190 Director Jackson also explained that the Forensic Biology Section's increase in case turnaround
191 time over the past three quarters was due to the new statistical reporting method being
192 implemented. Now that the Forensic Biology staff members are fully trained on the new
193 reporting methods, it is expected that the turnaround time will go back down.

194
195 For the Latent Prints Section, turnaround times have improved as expected now that staff has
196 been fully trained on the new Mideo software. Staff is now exclusively doing on screen
197 comparisons.

198
199 Director Jackson also noted that the backlogs for cases in the Toxicology and Trace Evidence
200 Sections have continued to decline.

201
202 Accreditation: In May 2014, ASCLD/LAB conducted its assessment of the Department's four
203 regional laboratories, and its calibration laboratory. Director Jackson informed the Committee
204 that the ASCLD/LAB *International* Accreditation was granted on September 3, 2014 for all
205 Department laboratories. The Department's accreditation will now be on a four year cycle. The
206 Department opted for the four year cycle rather than the five year cycle. This will align the
207 ASCLD/LAB accreditation with the DNA accreditation.

208 209 **Old Business**

210
211 Toxicology Manual Review: Dr. Alphonse Poklis reported to the SAC that the Toxicology
212 Subcommittee met prior to the full committee meeting to discuss the Toxicology Procedures
213 Manual. The Subcommittee discussed its suggestions with members of the Department's
214 Toxicology staff. DFS will be reviewing the Subcommittee's suggestions and revise the
215 procedures as needed.

216
217 Dr. Poklis moved to recommend closure of the Toxicology Procedures Manual review, which
218 was seconded by Ms. Given, and passed by unanimous vote of the Committee.

219 220 **New Business**

221
222 Laser Induced Breakdown Spectroscopy (LIBS) Validation: Dr. Rebecca Wagner, Chemistry
223 Research Analyst, provided the Committee with an overview of the LIBS validation project. The
224 Department has purchased an Applied Spectra LIBS RT100 instrument. DFS cannot currently
225 detect lithium which is commonly found in clandestine methamphetamine laboratory cases. The
226 new instrument will give DFS this capability. Dr. Wagner discussed the development of the
227 method for the LIBS instrument. She discussed the need to develop a qualitative analysis
228 method for lithium, sodium, chlorine, phosphorus, sulfur, and iodine. These elements or parts of
229 these elements are used in the manufacturing of methamphetamine. The Department is

230 developing a method that would require minimal sample preparation, and allow for rapid
231 analysis, and a reproducible and robust analysis. Dr. Wagner explained how the LIBS
232 instrument would function to the Committee. She noted that advantages of the LIBS include
233 being cost effective, requiring minimal sample preparation, and being easy to operate, semi-
234 destructive, and sensitive to low molecular weight elements.
235

236 Dr. Wagner gave an overview of the instrument method validation. The four steps of the
237 validation will include method development, performance characteristics, quality control, and
238 training. She discussed the quality control of the LIBS instrument that will include instrument
239 performance checks and elemental identification.
240

241 The Chair appointed a Trace subcommittee to review the LIBS validation. The Trace
242 subcommittee includes Maureen Bottrell, Jo Ann Given, Richard Myers, and Jami St. Clair. Dr.
243 Wagner will send the validation to the Subcommittee once it is complete.
244

245 New Toxicology Methods for Identification and Quantitation of Amphetamines and Anti-
246 Epileptic Drugs: Dr. Wagner presented new Toxicology methods for the LC/MS/MS instruments
247 on the identification and quantitation of Amphetamines and Anti-Epileptic drugs.
248

249 The Toxicology subcommittee will review the new methods once Dr. Wagner has completed
250 them.
251

252 New Controlled Substances Procedures on Structural Similarity Evaluation: Scott Maye,
253 Chemistry Program Manager, presented an overview of the new law addressing Controlled
254 Substances Analogs. The new law replaces the designer drug law and is more in line with
255 Federal controlled substances laws. Mr. Maye went over the Scientific Working Group for the
256 Analysis for Seized Drugs (SWGDRUG) recommendations for controlled substances analogs.
257 The Department follows the recommendations for written procedures and documentation. Mr.
258 Maye gave an overview of the portion of the procedures manual and worksheet addressing the
259 structural similarity evaluation. He gave examples of the wording used in reporting.
260

261 Mr. Maye explained to the Committee how the Board of Pharmacy has the ability to place
262 controlled substances onto Schedule I or Schedule II through an expedited regulatory process.
263 The Department will, on a quarterly basis, notify the Board of Pharmacy of any new substance it
264 is seeing that the Board may want to place in Schedule I or Schedule II. Once the Board of
265 Pharmacy has placed the substance on Schedule I or Schedule II, the General Assembly has 18
266 months to take action to enact it into law.
267

268 DNA Data Bank Goal: Brad Jenkins, Biology Program Manager, provided the Committee with
269 an update on the DNA Data Bank validation project relating to the use of the new Powerplex
270 Fusion kits and ABI 3500xl with GeneMapper ID-X. The Department's current protocol exploits
271 16 areas of DNA. In preparation for anticipated revisions to the Scientific Working Group on
272 DNA Analysis Methods and Combined DNA Index System guidelines, DFS is in the process of
273 purchasing new instrumentation and validating multiplex kits that will examine an additional 8
274 areas of DNA, which will be an increase from 16 to 24 areas. While several types of kits are
275 available, the Department's studies have demonstrated that the PowerPlex Fusion kit best meets

276 its analytical requirements. The enhanced process will increase the discrimination ability of
277 DNA Data Bank searches, will be more compatible with data bases outside the United States,
278 and will be quicker.

279 Mr. Jenkins provided an overview of the capabilities of the 3500xl instrument.

280

281 Mr. Jenkins will provide validation documentation to the SAC DNA Subcommittee, which
282 includes Dr. Cotton, Dr. Planz, and Dr. Sobieralski.

283

284 Request from ASCLD/LAB:

285 Director Jackson advised the Committee that ASCLD/LAB had sent a request to the Forensic
286 Science Board (FSB), which was presented at the August 20, 2014 FSB meeting. Director
287 Jackson explained that, since ASCLD/LAB is an accrediting body, it must ask for input from
288 interested parties when making changes to its accreditation program. Boards that oversee
289 forensic laboratories in states have been identified as interested parties. The FSB has been
290 invited to be designated as an interested party, which will allow the FSB to review and comment
291 on proposed changes to ASCLD/LAB accreditation programs.

292

293 The FSB agreed to be designated an interested party for ASCLD/LAB. Being aware that there
294 may be instances when it would be more advantageous for the Committee to review and
295 comment on proposed changes from ASCLD/LAB, the FSB also agreed to disseminate
296 information it received from ASCLD/LAB as an interested party to the SAC as applicable and
297 request that the SAC respond back directly to the Board with its recommendations.

298

299 Scientific Advisory Committee Board By-Laws:

300 Chief Deputy Director Katya Herndon advised the Committee that amending the SAC By-Laws
301 requires 2/3 vote of members present at a meeting. However, in order to amend the by-laws,
302 proposed amendments have to be submitted to the SAC in writing at the previous meeting. Ms.
303 Herndon noted that the proposed amendments were being provided to the SAC so that it would
304 be able to vote on them at the next meeting. Ms. Herndon reviewed each of the proposed
305 amendments, the majority of which were the result of statutory changes that have been made to
306 the laws impacting the SAC since the by-laws were initially adopted.

307

308 Public Comment

309

310 None

311

312 Next Meeting

313

314 The Scientific Advisory Committee will meet Tuesday, May 12, 2015, and Wednesday, October
315 14, 2015.

316

317 Adjournment

318

319 The Chair asked if there was a motion to adjourn. Dr. Poklis moved that the meeting of the SAC
320 be adjourned, which was seconded by Ms. Given, and passed by unanimous vote.

321

322 The meeting adjourned at 11:36 a.m.