

1 **Minutes (Draft)**
2 **Scientific Advisory Committee Meeting**
3 **August 8, 2006 at 9:00 a.m.**
4 **DFS Central Laboratory, Classroom 1**
5
6

7 Committee Members Present:
8

9 Dr. Jose Almirall
10 Dr. Frederick Bieber (via teleconference)
11 Mr. Joseph Bono, Chair
12 Dr. Dale Carpenter
13 Mr. Dominic Denio
14 Dr. Arthur Eisenberg
15 Dr. Paul Ferrara
16 Dr. Dan Krane
17 Ms. Demris Lee
18 Mr. Kenneth Smith
19

20 Committee Members Absent:
21

22 Mr. Barry Fisher
23 Ms. Jo Ann Given
24 Dr. Alphonse Poklis
25

26 Staff Members Present:
27

28 Ms. Wanda Adkins, Office Manager
29 Mr. Jeff Ban, Forensic Biology Section Chief
30 Dr. David Barron, Central Laboratory Director
31 Ms. Eileen Davis, Trace Evidence Section Chief
32 Mr. Doug DeGaetano, Forensic Scientist, Trace Evidence Section
33 Ms. Katya Herndon, Department Counsel
34 Ms. Linda Jackson, Forensic Scientist Supervisor, Controlled Substances Section
35 Ms. Meghan Kish, Committee Secretary
36 Mr. Josh Kruger, Forensic Scientist Supervisor, Trace Evidence Section
37 Mr. Pete Marone, Director of Technical Services
38 Mr. Michael Moore, Questioned Documents Section Chief
39 Mr. James Pickelman, Firearms and Toolmarks Section Chief
40 Mr. Steven Sigel, Deputy Director
41

42 Call to Order
43

44 Mr. Bono called the meeting to order.
45

46 Adoption of Agenda
47

48 Mr. Bono asked if there were any amendments to the draft agenda, and there were none.
49 The agenda was adopted unanimously.

50
51 Election of Chair

52
53 Mr. Bono informed the committee that his term as Chair of the Committee ended on June
54 30, 2006, and asked for nominations for Chair. Ms. Lee nominated Mr. Bono for a
55 second term. No other nominations were made, and Mr. Bono was re-elected
56 unanimously as Chair, to serve from July 1, 2006 until June 30, 2007.

57
58 Adoption of Minutes

59
60 Mr. Bono asked if there were any amendments to the draft minutes from the Committee
61 meeting held on February 7, 2006. Dr. Krane asked that line 140 be amended to include
62 “(not necessarily the adoption)” after the term research, to more accurately describe the
63 spirit of the Committee’s endorsement of the Department’s research into new
64 technologies. Ms. Kish added that a technical correction was also necessary; Ms. Alka
65 Lohmann’s name had been misspelled in the list of staff members present at that meeting.

66
67 Dr. Ferrara made a motion that the Committee adopt the minutes as amended. The
68 motion was seconded, and passed unanimously.

69
70 Chairman’s Report

71
72 Mr. Bono informed the Committee that at the May 10, 2006 meeting of the Forensic
73 Science Board, the Board had considered the specific case review that had been requested
74 in the Winston case. Mr. Bono explained that, after discussion, the Board voted to
75 decline the request for review. Mr. Bono then asked Dr. Eisenberg to advise the
76 Committee of the results of the re-review that he and Ms. Lee had performed at the
77 request of Judge Humphreys.

78
79 Dr. Eisenberg explained that, upon reviewing the material, he and Ms. Lee had come to
80 the conclusion that the case file had been complete when the team conducted its original
81 review, and that all protocols had been followed. Dr. Eisenberg also reported that the
82 Department had adopted all four recommendations that had been made by his panel after
83 their original review. He indicated the Department actually went beyond what was
84 recommended by requiring an additional review by a section supervisor in all cases
85 involving homicides and complex mixtures. There were no questions posed by the
86 Committee.

87
88 Mr. Bono next addressed the membership changes that had taken place on the
89 Committee. He reported that Dr. McElfresh had resigned, and was replaced by Mr. Barry
90 Fisher, Director of the Los Angeles County Sheriff’s Department Crime Lab. Mr. Fisher
91 could not be present at this meeting due to scheduling conflicts. Mr. Bono congratulated
92 Dr. Almirall, Dr. Carpenter, Dr. Krane, and Dr. Poklis on their reappointments to serve
93 an additional four years on the Committee. Mr. Bono also informed the Committee that

94 he had accepted a position as the Director of the United States Secret Service Laboratory
95 in Washington DC.

96
97 Director's Report

98
99 Dr. Ferrara informed the Committee that the Department currently employs over 300 full-
100 time employees, and operates under a budget in excess of \$30 million. He then reported
101 on the funding the Department had received during the last General Assembly. Dr.
102 Ferrara explained that the General Assembly had provided \$65.5 million in general funds
103 to build a 106,000 square foot laboratory facility to replace the current Northern
104 Laboratory, to be completed in November of 2008. Additionally, Dr. Ferrara told the
105 Committee that the Department had received funding to lease the third floor of the
106 Biotech 8 building, scheduled for completion in the summer-fall of next year. He stated
107 that the new building, which will be located across the street from the Central Lab
108 facility, will house the administration and training sections, and will provide more space
109 for laboratory expansion in the current building.

110
111 Dr. Ferrara reported that the Eastern laboratory expansion is also currently underway,
112 adding 6,000 square feet to the current facility. He explained that the Department is also
113 now looking into the possibility of purchasing land adjacent to the Western Laboratory,
114 and an appraisal of that land is pending.

115
116 As for the new Mitochondrial DNA Laboratory, Dr. Ferrara reported that the construction
117 is nearly complete. He informed the Committee that the only problem is the inability to
118 find experienced examiners to staff the new lab.

119
120 Dr. Ferrara discussed the new law, § 19.2-188.1(B), which became effective July 1, 2006,
121 that enables law enforcement officers to testify to the results of field tests in any trial for
122 a violation of § 18.2-250.1 regarding whether or not any plant material, the identity of
123 which is at issue, is marijuana. The Department tested, selected, and began distributing
124 marijuana field tests to law enforcement agencies across the state using an online
125 ordering system. He explained that roughly 30% of the Department's drug caseload is
126 composed of marijuana possession cases, and the implementation of use of the marijuana
127 field tests should reduce the number of submissions. He added that any samples that
128 result in unclear field test results will be submitted to the Department for analysis and
129 given priority.

130
131 Dr. Ferrara next reported that the Department had only been granted \$225,000 of the
132 requested \$1.4 million for equipment replacement, and had only received half of what
133 had been asked for to replace breath alcohol instrumentation.

134
135 Dr. Ferrara announced that the statewide backlog had decreased during the month of July,
136 and that the backlog total, as of the end of the month, was 14,835 cases, half of what it
137 was last year.

138
139 Dr. Krane inquired as to the status of the search for new breath alcohol instruments to
140 replace the Intoxylizer 5000, which Section Chief Alka Lohmann had reported on at the

141 last meeting. Mr. Marone explained that four instruments are being evaluated to
142 determine the desired features and the selected features will be used to develop bid
143 specifications. Dr. Krane asked that Ms. Lohmann provide an update at the Committee's
144 February 2007 meeting.

145
146 Gunshot Residue (GSR) Report Language

147
148 Mr. Doug DeGaetano, Forensic Scientist in the Trace Evidence section of the
149 Department's Central Laboratory, discussed the current DFS GSR report wording and
150 compared and contrasted it to the report wording recommendations discussed at the June
151 2005 FBI GSR symposium and the wording used in the ASTM (American Society for
152 Testing and Materials) Standard Guide for GSR analysis by SEM/EDS (Scanning
153 electron microscope and energy dispersive x-ray).

154
155 Proposed report wording changes to the current DFS report language included: changing
156 the terminology for three component particles from "Identified as primer residue" to
157 "Highly specific to primer residue"; continuing to use "primer residue" rather than
158 "gunshot residue" to describe these particles; continuing to use "indicative of primer
159 residue" to describe two component particles; adding qualifiers to the reports instead of
160 listing only results and adopting an eight hour time limit for the analysis of primer
161 residue collected from the hands of a living individual. If more than eight hours have
162 elapsed from the shooting event and the collection of the sample the GSR kit will not be
163 analyzed. A table of proposed qualifiers was presented.

164
165 Mr. DeGaetano mentioned that these qualifiers are what examiners routinely testify to in
166 court. Including them in the report allows for clearer interpretation of the results and
167 hopefully less need for court testimony by examiners.

168
169 General discussion followed on wording possibilities.

170
171 Dr. Krane made a motion to also include the qualifier statement addressing how primer
172 residue can be deposited on the hands in reports that conclude the particles found "were
173 indicative of primer residue." The motion was seconded and passed unanimously.

174
175 Dr. Krane made a motion to include a parenthetical qualifier that the "test itself cannot
176 determine the relative likelihood of these alternative sources," after the qualifier
177 addressing how primer residue can be deposited on the hands. There was no second, so
178 the motion failed.

179
180 Dr. Krane made a motion to amend the wording in the same qualifier to delete the
181 circumstance "in proximity to the discharge of a weapon" and replace it with broader
182 language such as in an environment where a weapon has been fired. The motion failed
183 for want of a second.

184
185 Dr. Almirall made a motion to recommend the proposed changes with the one
186 amendment to the Board. The motion was seconded. Dr. Krane objected to the motion.
187 The motion passed 8-1.

188

189 Mr. Denio provided the Committee with a statement from Dr. Marc LeBeau, Chemistry
190 Unit Chief of the FBI Laboratory, refuting an article in the May 26, 2006 issue of the
191 *Baltimore Sun* which offered “misleading impressions” as to the reason why the FBI has
192 discontinued gunshot residue analysis. Mr. Denio, in concurrence with the article,
193 reaffirmed that the science of gunshot residue analysis is valid; however, he noted that
194 the few cases that the FBI received per year were not numerous enough to justify
195 maintaining an entire unit.

196

197 Senate Bill 286

198

199 Senate Bill 286 was carried over to the 2007 Session by the Senate Courts of Justice
200 Committee. In carrying the bill over, the Courts Committee expressed an interest in
201 getting feedback from the Department’s new policy and advisory boards on the issue. Mr.
202 Bono suggested an amendment to the bill, which addresses the admissibility of DNA
203 evidence in criminal proceedings, and would require that “[a]ll DNA analyses offered as
204 evidence shall have been performed by laboratories certified to perform such analyses.”
205 He explained that the word “certified” applies to individuals, while the word “accredited”
206 applies to laboratories. Dr. Eisenberg agreed, and began a discussion on whether the
207 statute should list the accrediting bodies.

208

209 Dr. Krane made a motion that the word “certified” be replaced by “accredited by a
210 recognized accrediting body”. The motion was seconded. After a discussion on other
211 phrasing possibilities, the motion passed unanimously.

212

213 Storage and Retention of Evidence

214

215 Pursuant to a request during the February Committee meeting, Ms. Herndon gave a
216 presentation addressing the storage, preservation, and retention of human biological
217 evidence in the Commonwealth.

218

219 Qualification Standards for Director’s Position

220

221 Mr. Marone explained that, in accordance with the statute, the Committee needed to
222 recommend qualification standards for the Director’s position. The proposed standards
223 were included in Dr. Ferrara’s Employee Work Profile (EWP). Referencing the
224 organizational objective section of the EWP, Dr. Krane noted that it did not reflect that
225 the Department conducts examinations for the defense. Dr. Ferrara explained that the
226 user agencies listed were taken directly from the statute, and that defense attorneys could
227 not directly submit evidence to be analyzed. Rather, defense requested examinations are
228 conducted upon court order.

229

230 Dr. Eisenberg made a motion to recommend the document to the Board as is. The motion
231 was seconded and passed unanimously.

232

233 Drug Sampling and Reporting Requirements

234

235 Mr. Marone updated the Committee on minor changes that were made to the drug
236 sampling and reporting procedures which require enough samples to be analyzed to meet
237 the weight thresholds from the statutes and the sentencing guidelines.

238

239 Familial Searches

240

241 Dr. Ferrara explained that on occasion there are cases in which a search of the DNA
242 profile from an evidence sample against the DNA databank results in a moderate
243 stringency match to a very similar (but not exact) profile, suggesting a familial relation.
244 He asserted that current Department policy does not allow the reporting of these
245 moderate stringency hits.

246

247 Mr. Jeffrey Ban, Forensic Biology Section Chief, reported that there are also situations
248 when a suspect sample is submitted for direct comparison with the evidence, and analysis
249 reveals a similar profile that suggests a familial relationship, but not a match. The reports
250 issued in these cases do not currently reflect any of this information.

251

252 The Committee discussed the fact that databank searches for those with familial
253 relationships would require capabilities that the Combined DNA Index System (CODIS)
254 software does not yet possess. Due to the limitations of the current available CODIS
255 search algorithms, the CODIS software may miss a relative in the databank whose profile
256 is similar to that of the evidence, but does not share an allele in common with the
257 evidence at one locus. In addition, the software may also provide hundreds of possible
258 candidates if the evidence profile contains common alleles, which requires a significant
259 amount of time on the part of the law enforcement agencies and the crime laboratory to
260 resolve when in reality none of the possible candidates are related to the true perpetrator.

261

262 Discussion followed on whether or not direct comparisons were a separate issue from
263 databank searches.

264

265 After a discussion in which several Committee members stated that they felt the
266 Department would be remiss if such information was not provided to law enforcement,
267 Dr. Eisenberg made a motion that the following interim policy be recommended to the
268 Board: In cases when a suspect known is submitted to DFS and the suspect is excluded,
269 however the examiner recognizes there is a familial relationship, the likelihood ratio
270 should be utilized and the information should be provided to the submitting agency as an
271 investigative lead. The motion was seconded. The motion passed unanimously.

272

273 Dr. Krane made a motion that Mr. Bono form a subcommittee to further discuss familial
274 searches and to develop objective criteria for performing such searches. The motion was
275 seconded, and carried, 9-0.

276

277 Selection of Future Meeting Dates

278

279 The Committee scheduled its next meeting for February 6, 2007 at 9 a.m. Dr. Krane
280 asked that at that time, the Committee evaluate the possibility of holding an interim
281 meeting at one of the Department's other labs. He also requested that the Department

282 evaluate the suggestions made in the publication on DNA mixtures that he distributed at
283 the February, 2006 meeting, and address them at the February, 2007 meeting.

284

285 Public Comment

286

287 Mr. Bono asked if any members of the public wished to address the Committee. No
288 members of the public provided comment.

289

290 Adjourn

291

292 The Meeting Adjourned at 12:15 pm.

293