

# National Commission on Forensic Science

## Meeting Summary

*October 28-29, 2014*

**Office of Justice Programs  
810 7th Street NW, Washington, DC**



**NIST**  
**National Institute of  
Standards and Technology**  
U.S. Department of Commerce

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### Meeting Summary

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### Brief Meeting Summary

The fourth National Commission on Forensic Science (NCFS) meeting involved reviewing initial draft products of the NCFS subcommittees and hearing status updates of their activities. Presentations were also given on a recent National Research Council report assessing eyewitness identification and a draft document from the White House Subcommittee on Forensic Science entitled “Achieving Interoperability for Latent Fingerprint Identification in the United States.” An update was provided on NIST activities with the Organization of Scientific Area Committees (OSAC) and a NIST Center of Excellence in Forensic Science. Extensive discussions were held on five of the six initial work products involving (1) a policy recommendation for all forensic science service providers to become accredited, (2) a views document on scientific literature in support of forensic science and practice, (3) policy and directive recommendations on pretrial discovery in forensic evidence cases, (4) policy and directive recommendations regarding presentation of expert testimony, (5) policy recommendations regarding funding for accreditation of medicolegal death investigation offices and certification of medicolegal death investigation personnel, and (6) a views document regarding terminology for “forensic science” and “forensic science service provider.” Public comment on these documents provided during the 15 days prior to the meeting was considered. It was announced that further public comment will be collected after the meeting. It is expected that subcommittees will revise their documents and present them for a vote at the next Commission meeting.

### Tuesday, October 28

12:30 p.m.: Meeting was called to order by **Brette Steele**, the Designated Federal Official (DFO).

**Ms. Steele** announced the charter would be revised to include digital evidence and that the charter would be extended beyond its current expiration of April 23, 2015. The Attorney General and the Deputy Attorney General have announced their resignations. However, the DOJ remains committed to the work of the Commission and a new DOJ co-chair will be appointed by the new Attorney General and the Deputy Attorney General.

Ms. Jones is working with the website to set up notifications for work products and meetings. See <http://www.justice.gov/ncfs/work-products>.

### Welcoming Remarks and Meeting Objectives

**Vice-Chair Nelson Santos** - Department of Justice (DOJ) welcomed the group and thanked National Institute of Justice (NIJ) for their efforts coordinating the Commissions’ work.

**Vice-Chair Santos** reminded the group that it is important to understand the commission's role and responsibilities and the requirement to remain impartial. The open comment period has shown that there is a great deal of interest in the proceedings. He stressed the importance of focusing on delivering quality work products that the all stakeholders can benefit from.

There were some concerns raised about the length and style of some of the documents produced within the working groups, a formatting guide will be re-distributed.

**Vice-Chair John Butler** - National Institute of Standards and Technology (NIST) also welcomed the group.

**Vice-Chair Butler** reviewed the membership vote from August 27<sup>th</sup> which passed (93%). *"The Attorney General should direct the Bureau of Justice Statistics to create a proposal for the development of a nationally representative survey to determine forensic capabilities for those who write reports and offer testimony within federal, state, and local law enforcement agencies and for medical examiner and coroner offices. The survey instrument should be developed in collaboration with relevant stakeholder organizations by the next Commission meeting."* This was approved by Attorney General on September 8<sup>th</sup>.

He stated that the work products proposed by the Subcommittees received 138 comments. The comment period closed on Oct. 27<sup>th</sup> at 11:59 PM but will re-open for an additional 15 days after the meeting.

**Vice-Chair Butler** requested that the Subcommittee co-chairs follow this format for their oral reports to the commission: (1) begin with discussing the membership of their Subcommittee, (2) explain the group activities in terms of a big picture view, (3) review top priorities for the subcommittee, and (4) discuss any draft work products that were submitted and public comments received. He reviewed the agenda for today's meeting and noted that there would be a switch in that the Survey on Law Enforcement Forensic Science Service Providers would be presented on Wednesday and the Achieving Latent Print Interoperability in the United States presentation would be presented today.

A NCFS work products page has been created: <http://www.justice.gov/ncfs/work-products>. Individuals wishing to submit written public comment regarding draft work products should do so by going to [www.regulations.gov](http://www.regulations.gov) and entering Docket No. DOJ-LA-2014-0006. A GovDelivery system is being established to share information with the public.

## **Working Lunch: Achieving Latent Print Interoperability in the United States: Summary of Report and Recommendations**

**Ms. Tania Simoncelli** - Assistant Director, Forensic Science, Office of Science and Technology Policy (OSTP), Executive Office of the President and **Ms. Laura Gerhardt** - Graduate Student Intern, OSTP

**Ms. Simoncelli** explained that a draft report was released for public comment in the previous week. She presented an overview of the OSTP efforts to strengthen the forensic sciences and the role of the National Science and Technology Council to convene interagency activities pursuant to these efforts. She described that among these efforts was an interagency working group to address Recommendation 12 of the National Academies report *Strengthening Forensic Science in the United States*, which was directed at achieving nationwide fingerprint interoperability. Building on the work of the working group, OSTP has produced a draft on what is necessary to achieve latent print interoperability.

She went on to provide an overview of the fingerprint searching process and the two sources of fingerprints used in criminal investigations. One is a fingerprint obtained as a record in a controlled

environment (“ten prints”) and the other is a latent finger print left by an unknown source, including those recovered from a crime scene. Automated Fingerprint Identification Systems, AFIS, can be used to search both types of fingerprints. Because ten prints are typically high quality and uniform, modern AFIS systems have been able to fully automate ten-print searches, and interoperability is not a major concern. By contrast, latent prints vary in quality and can be incomplete or smudged. In order to perform a latent print search, an examiner must manually encode an image. The benefits of AFIS interoperability are that it increases speed, accuracy and efficiency of searches.

**Ms. Gerhardt** reviewed the report findings and recommendations. State-to-Federal interoperability has been mostly achieved and states can perform routine searches, while Federal systems do not yet have fully interoperability. Local remote searches have varying levels of interoperability. The following is necessary for achieving interoperability:

- 1) Technical compatibility
- 2) Network connectivity
- 3) Proper governance
- 4) Performance testing & training
- 5) Education and outreach

The draft report is available on the OSTP website for comments through Nov. 26<sup>th</sup> <http://www.whitehouse.gov/administration/eop/ostp/library/shareyourinput>.

### Questions from Commission Members

A question regarding annual testing of CODIS was asked. It was recommended this be submitted through the public comment process.

Is there anything this commission can do to promote interoperability? It was suggested that financial resources seem to be the largest barrier to adoption.

It was asked how they arrived at 3 years as the goal for federal compliance and when the goal is also to see local compliance? It was articulated that these recommendations arose from the Task Force and are designed to give adequate time for funding and system upgrades.

It was asked what the next steps are after the public comment period. When the comment period closes, the comments will be integrated and the final report will be sent to the NCFS Committee on Science for review. OSTP will aim to have the report finalized by the end of the year.

What are the costs for state to state connectivity? The report does not include an economic analysis; some back-of-the-envelope calculations were made by the Task Force, but these are now somewhat out of date.

Do any of the recommendations address more long-term technological advances? Advances in automated feature extraction algorithms will minimize many of the interoperability concerns that are particular to latent prints.

It was requested that real-time comments be shared with the commission so that we can use them as guidance for documents.

## Subcommittee Reports and Discussion

### Human Factors Subcommittee

**Justice Bridget McCormack and Professor Troy Duster, Co-Chairs**

**Professor Duster** stated that the Subcommittee is still being formed and expects to submit a report at the next meeting. He requested suggestions to give to the Subcommittee to deliberate.

It was recommended that the UK Regulations draft guidance would be a good place to start.

It was also suggested that the Subcommittee identify those issues that are domain relevant such as discussed at the previous meeting by Itiel Dror and Bill Thompson.

It was pointed out that the brain's biological structure varies and how that creates differences in visual mechanisms. More needs to be understood about how this affects the way forensic scientists collect and analyze evidence.

It was requested that a training product on human factors and cognitive bias be developed. It was recommended that Dr. Davis's presentation (given at the second NCFs meeting) would be a good place to begin and that that should be shared with the Subcommittee.

It was requested that a test be developed to assist with testing examiners for the ability to see spatial relationships for hiring evaluations. It was suggested that the air traffic controllers' exam be referenced to see if it would be a good fit.

It was also suggested that institutionalization can affect behavior and shape expectations others agreed that socialization is a high priority.

### **Accreditation and Proficiency Testing Subcommittee**

#### **Ms. Linda Jackson and Ms. Patricia Manzollilo, Subcommittee Co-Chairs**

**Ms. Manzollilo** reported that the Subcommittee has 21 members who come from accrediting bodies, state, local and federal backgrounds. The group met in September for two full days and broke into smaller subgroups in three areas. The priorities for this group are accreditation recommendations, a views document on proficiency testing and the critical steps for accreditation. They have all participated in document sharing and commenting and the group has worked collaboratively.

#### **Critical Steps to Accreditation - Mr. Peter Marone, Task Group Leader**

The Subcommittee has created an informational document for people unfamiliar with accreditation. Since accreditation is a long-term process, this document is about changing the culture and ideas and working toward accreditation. Accreditation requires written procedures, written reports, technical reviews of written reports, note taking including timekeeping, testimony monitoring, quality manuals and rules about what you can and cannot say.

Comments from the commission were requested to ensure the subgroup was on the right track.

It was recommended that Forensic Science Service Providers (FSSPs) who are testifying be given the opportunity to review the case file prior to testimony.

It was asked if the group was considering certification of individual practitioners along with accreditation – certification will be addressed separately.

#### **Proficiency Testing - Ms. Karen Athenas, Task Group Leader**

Proficiency testing is a quality control issue. The types of proficiency testing are open testing, blind testing, and re-examination testing. Some other alternative approaches to proficiency testing include observation and peer review. There are currently 19 providers and 17 of these are accredited. Some of the challenges to proficiency testing are degraded samples, test design and cost. The group will investigate the costs for the Commission.

The Commissioners expressed concern about the subgroups' assumption that blind testing was too expensive. Several Commission members expressed an interest in understanding actual costs for blind testing.

The Subcommittee was asked to look into the practicalities and logistics of testing.

### Discussion on the Recommended Policy Recommendation on Accreditation

#### Mr. Marvin Schechter, Task Group Leader

The Subcommittee recommends universal accreditation and recommends that the Attorney General take steps to implement universal accreditation. To achieve that universal accreditation the Commission recommends that the Attorney General take action to promote and enforce universal accreditation.

Recommended Steps:

- 1) Attorney General direct all current FSSPs to maintain their accreditation. Those FSSPs such as digital FSSPs that are not yet accredited shall prepare and apply for accreditation within 5 years.
- 2) Accreditation shall be to internationally recognized standards.
- 3) Attorney General shall require the DOJ grant funding provided to all FSSPs shall only be granted to those who are accredited or are in the process of achieving accreditation. Further in the future and DOJ funding shall include a special condition requiring that the FSSP entity be accredited.
- 4) The Attorney General shall require that all federal prosecutions rely on forensic analyses conducted by accredited FSSPs after January 2020.
- 5) The Attorney General should encourage by any means possible the universal accreditation of all FSSPs with an appropriate enforcement mechanism.

Because of public comments there have been some changes made to this document to deal with the problem of academicians who do not conduct experiments in laboratory and that rely on reviewing documentation to render an opinion. Some language was added to the international standards because they think there will be an influx of people interested in becoming accredited FSSPs. Dates that are set for accreditation were based in large part on fairness.

Concerns were raised by the commissioners about the deadlines and the scope of the recommendation.

Other Commissioners were concerned about excluding specific specialties from this recommendation such as statisticians, hospital toxicologists and individuals providing testimony based on expertise in the field of forensic science.

There was a great deal of discussion about requiring the Law Enforcement Forensic Science Service Providers survey results prior to setting any deadlines for accreditation

**Ms. Manzillo** summarized the items that the Subcommittee will take back and review as a result of this Commission meeting:

- 1) Issue of consultants, academicians, specialty examinations to further refine and clarify that in the document.
- 2) Spell out that this is not intended to address medical examiners and coroners because that will be addressed separately.
- 3) To look at the timelines and work with the survey, look at other states timelines.

- 4) Carefully review the implementation about the federal prosecutions relying.

### Scientific Inquiry and Research Subcommittee Report

#### Dr. Suzanne Bell, Subcommittee Co-Chair

**Dr. Bell** explained that the membership of their Subcommittee and that all the members collaborated on the same document. The goal was to work on a views statement in order to set a foundation for future work. They agreed to respond to all public comments in writing. We had no changes to our document from the comments that were received.

In the future they'd like to work on a directives document and they'd like to recommend that the DOJ create an office with whom the Subcommittee can interact and who has the authority to follow up on directives. They would also like to explore the role of a Ph.D. in Forensic Science.

#### Comments from Commission Members

It was suggested that the Commission as a whole should take on the question of an enforcement mechanism and not the Subcommittees.

There was also some discussion of the quality of peer reviewed articles.

#### Views Document

The NCFS believes that a comprehensive evaluation of the scientific literature is critical for the advancement of forensic science policy and practice in the United States. While other forms of dissemination of research and practice (e.g., oral and poster presentations at meetings, workshops, personal communications, editorials, dissertations, theses, and letters to editors) play an important role in science, the open, peer-reviewed literature is what endures and forms a foundation for further advancements. As stated by the National Research Council:

“Journal publication, traditionally an important means of sharing information and perspectives among scientists, is also a principal means of establishing a record of achievement in science.”

This report further discusses the importance of issues surrounding potential conflicts of interest as it relates to peer review and publication practices:

“Disclosure, either public or institutional, is essential to controlling conflict of interest, and some universities and scientific journals prohibit certain forms of commercial contractual arrangements by their members or authors. But the responsibility for such disclosure rests with scientists themselves.”

Given this background and considerations, the position of the NCFS is that foundational, scientific literature supportive of forensic practice should meet criteria such as the following:

- 1) Peer-reviewed in the form of original research, substantive reviews of the original research, clinical trial reports, or reports of consensus development conferences.
- 2) Published in a journal or book that has an International Standard Number (ISSN for journals; ISBN for books) and recognized expert(s) as authors (for books) or on its Editorial Board (for journals).
- 3) Published in a journal that maintains a clear and publicly available statement of purpose that encourages ethical conduct such as disclosure of potential conflicts of interest integral to the peer review process

- 4) Published in a journal that utilizes rigorous peer review with independent external reviewers to validate the accuracy in its publications and their overall consistency with scientific norms of practice.
- 5) Published in a journal that is searchable using free, publicly available search engines (e.g. PubMed, Google Scholar, National Criminal Justice Reference Service) that search major databases of scientific literature (e.g. Medline, National Criminal Justice Reference Service Abstracts Database, and Xplore).
- 6) Published in a journal that is indexed in databases that are available through academic libraries and other services (e.g. JSTOR, Web of Science, Academic Search Complete, and SciFinder Scholar).

### Comments from Commission Members

There was further discussion of peer reviewed literature and the quality of peer review in journals.

It was recommended that this document should not preclude new types of publication by narrowly drawing the lines in this document.

It was articulated that they aren't intending to discount scientific communication they are just trying to establish foundational literature. The group was asked to identify the gaps in foundational literature in forensic science to help the process where the gaps exist.

### Wrap-up

5:00 p.m.: Meeting was adjourned by **Brette Steele**, the Designated Federal Official (DFO).

### Wednesday, October 29

The meeting was called to order at 9:00 a.m. by **Brette Steele**.

### Announcements

#### **Vice-Chair Nelson Santos (DOJ)**

**Vice-Chair Santos** welcomed the group and opened with a discussion of staffing for the Commissions. He explained that Robin Jones and Danielle Weiss are working as contractors within the DOJ and that NIJ would be adding another federal employee shortly to help move work products assigned by the Attorney General forward. The Commission is working on a way to make responding to comments transparent and efficient, and a timeline that will be very structured and straight forward.

**Vice-Chair Butler** discussed the day's agenda.

### Status Report: Organization of Scientific Area Committees

#### **Mr. Mark Stolorow, Director of Organization for Scientific Area Committees (OSAC) Affairs, NIST**

**Mr. Stolorow** explained the infrastructure of the OSAC and explained that they had added a new committee for Digital Evidence. He further explained that the membership of the OSAC has now been posted to the NIST OSAC website. There are 23 Subcommittees made up of 521 individuals who have been appointed. These representatives are from 49 states, 200 of them are practitioners in state and local forensic science roles. The participants are a balanced group from backgrounds such as state, local and federal government, academics, and forensic sciences.

**Mr. Stolorow** went on to explain the training that has been provided to the OSAC members. Virtual training webinars were conducted between July 7<sup>th</sup> and September 12 for the various OSAC committees: FSSB, LRC, QIC, HFC and all five Scientific Area Committees. There was an in-person FSSB meeting that was held on August 7<sup>th</sup>. Virtual meetings were also held in September and October for the 5 SAC membership selection meetings and the 23 SAC Subcommittee membership selection meetings.

Moving forward, the OSAC will conduct outreach with open OSAC forums and OSAC has provided presentations with a dozen stakeholder organizations since last NCFs meeting and has many more planned in the coming year. The OSAC will begin a transition from infrastructure build-out to operations in standards and guidelines development in the coming year. OSAC Affiliates will team up with Members on Task Groups for special projects and serve as pool for new positions and replacements.

Next steps will be to:

- 1) Appoint Digital Evidence Subcommittee Chair and members in November
- 2) Conduct OSAC virtual training for each of 24 Subcommittees via webinar in November and December
- 3) Convene 3-day in-person OSAC meetings in Norman, OK to consist of
  - a. January 13-15, 2015 for the Chemistry/Instrumental SAC, and the Crime Scene/Death Investigation SAC
  - b. January 20-22, 2015 for the Biology/DNA SAC, the Digital/Multimedia SAC and the Physics/Pattern SAC
- 4) Convene Public SAC meetings in conjunction with the AAFS Meeting in Orlando, FL on February 16-17, 2015

### Comments from Commission Members

A question was raised about the composition of the OSAC so as to be assured that it will be fair and balanced? Checks and balances are in place and the composition of the Subcommittees have been carefully compiled to ensure balance. Discussion also ensued regarding how the OSAC will affect the existing Scientific Working Groups (SWGs). NIJ might have more information about whether existing SWGs will continue to be funded, but that funding for the DNA group SWGDAM will continue through the FBI.

## Reporting and Testimony Subcommittee Report

### Judge Jed Rakoff and Mr. Matt Redle, Co-Chairs

**Judge Rakoff** explained that the mission of the Reporting and Testimony Subcommittee is to provide guidance for the intersection of science and the courtroom. The group has 21 members, 14 of whom are Commissioners. The subcommittee has 8 scientists and statisticians, 1 representatives of the victim advocacy community, and 12 attorneys. Of the attorneys, 3 are law professors, 2 judges 1 retired law enforcement, 2 prosecutors, 1 general counsel for FBI, 2 public defenders, and 1 co-director of the Innocence Project. They have divided into 5 subgroups: Report Content Group, General Issues of Terminology Group, Probabilistic Statements Group, Misleading Terms Group and Legal Issues Inherent in Reporting Group.

The legal issues group headed by Paul Giannelli was first to produce two products. The full subcommittee held two long teleconferences to discuss the work products. The Subcommittee decided to continue with presenting the work products because they represent a consensus of opinion within

the Subcommittee. The concerns about whether the product is within the Commission's scope warranted discussion at the full-Commission level. **Mr. Paul Giannelli**, Legal Issues Work Group Leader, thanked the group for their input and requested specific, constructive criticism. The Legal Issues Work Group considered discovery as its first task and explained that there are nine items in the policy recommendation and the four directive recommendations.

#### PRETRIAL DISCOVERY IN FORENSIC EVIDENCE CASES POLICY RECOMMENDATION

Policy (with commentary noted in [brackets] )

1. Pretrial disclosure of forensic evidence should be comprehensive and reciprocal — subject to the U.S. Constitution and the law of privilege. The prosecution's disclosure obligation should apply whether or not the information will be used at trial. The defense obligation should apply to evidence that is intended for use at trial, including the opinions of testifying experts who have not performed any testing.

Note 1: The opinions of consulting experts are not subject to disclosure due to constitutional protections. Moreover, the attorney-client privilege and work product doctrine may foreclose discovery of certain material.

[Giannelli commented that the group found there was no scientific reason not to have open and reciprocal discovery.]

- 2) The results of all forensic examinations and all expert opinions should be recorded; oral reports should be reduced to writing. The results of examinations and expert opinions should be recorded at the time the examination is conducted or an opinion is formed — or promptly thereafter.

[When Giannelli was prosecutor in the Army, reports were disclosed to both the prosecution and the defense.]

- 3) The results of all forensic examinations, expert opinions, and related case documents (e.g., bench notes, graphs, electropherograms, calibration reports, etc.) should be subject to disclosure.
- 4) An expert witness's qualifications should be subject to disclosure, including a list of publications authored and a list of recent cases in which the witness testified as an expert at trial.

[Giannelli noted that civil rules require disclosure of publications.]

- 5) Disclosure should be timely, although all items need not be disclosed at the same time:
  - a. Disclosure of initial laboratory reports should occur as soon as practicable after completion of the examination so that counsel has sufficient time to consult with an expert — which may require applying for funds to retain an expert — and to permit retesting.
  - b. Disclosure of all other items should occur as requested, and no later than 90 days before the scheduled trial date.
- 6) There should be a continuing duty to disclose throughout the trial until sentencing. For exculpatory evidence, the duty to disclose should apply after sentencing.  
[Policy crafted from the American Bar Association model rules.]
- 7) Information, such as laboratory testing protocols, quality assurance procedures, accreditation and audit reports, proficiency testing results, and internal validation studies, should be readily accessible — preferably by posting on the internet or electronically upon request.

- 8) Forensic evidence should be preserved both before and after trial — until appeals are exhausted and sentences served. Jurisdictions should promulgate procedures concerning the preservation and retention of evidence.<sup>5</sup> Evidence should not be unnecessarily consumed during testing, and consumptive testing should not be done without notice to the defense if a defendant has been charged.

[From the ABA model standards, developed by Mr. Giannelli, but will modify based on NIST report.]

- 9) The defense has the right to inspect and retest forensic evidence that is under the custody or control of the prosecution. The prosecution has the right to inspect and retest forensic evidence that is under the custody or control of the defense and that the defense intends to use at trial.

#### DIRECTIVE RECOMMENDATIONS

- 1) The Attorney General should direct federal prosecutors, forensic laboratories within the Department of Justice, and laboratories under contract with the Department of Justice to follow the policies outlined above that are applicable to their duties.
- 2) The Attorney General should recommend amendments to the Federal Rules of Criminal Procedure that are consistent with the above policies.
- 3) The Attorney General should request that the Organization for Scientific Area Committees (OSAC) consider these policies in their best practices and standards development.
- 4) The Attorney General should ask other jurisdictions to consider adopting the policies outlined above.

To summarize, Mr. Giannelli and the subcommittee wanted complete discovery for both the prosecution and the defense but there are Constitutional limitations that he would defend and he would say are justified. He stated that discovery occurs late in the process and defense counsel does not have the ability to investigate a crime scene. Up until charge, the state has all the resources and develops the evidence for a trial. He continued to state that the purpose of this document is to make the playing-field level to have a system to convict the guilty and to exonerate the innocent.

#### Questions from Commission Members

It was suggested that #2 in the recommendations, results of forensic cases should be recorded, should be at the conclusion of #4, list of recent cases. It was explained that some state statutes require evidence storage but the burden of evidence storage should be properly discussed before further requirements are issued. There was further discussion of #4, list of recent cases, this is not an item that is currently tracked and able to be queried by a database and could present an administrative burden. There was also discussion about the burden of retaining evidence due to the need to track the progression of a case. Likewise, what was considered “recent” needed to be better defined and specified that it should only be for cases in which an individual has testified. It was also added that under Rule 26 in the rules of Civil procedure, “recent” cases are those in the past 4 years where the individual has testified at trial or by deposition.

Discussion then revolved around whether this document is beyond the charter of this Commission. It was suggested that the Commission should be developing guidance not prescriptive guidelines; these recommendations are unworkable, vague, and attorneys already do these things without proposed rules. It was announced that the issue of whether or not these recommendations are within the scope of the Commission will be addressed by the DOJ leadership.

It is reiterated that Federal Rules do not require what is contained in a lab report to be disclosed and there is no specific rights to retest evidence. He reiterated that the intent of the document was to incorporate the best practices of multiple jurisdictions. He explained that the DOJ requested that the Subcommittee work on the issue of discovery and there were no drafts that were not sent to the DOJ. However, it was reiterated that there are no current prohibitions against getting this information and there are current procedures in place to allow for this and the content of these recommendations are much too prescriptive. It was suggested that the group should focus on report writing and then move on to testimony.

It was articulated that both DOJ and NIST recognize that there are problems with Forensic Science that can be solved by the ordinary adversary process because defense attorneys and prosecutors are not forensic scientists and often do not know that much about forensic science. This process of forensic science analysis occurs at a critical time prior to trial in which many individuals end up pursuing guilty pleas, when neither side has all that much idea of what information forensic scientists will provide. In light of this, the interest in discovery issues was that the Commission would try to find ways that the truth would emerge more properly in our criminal defense system and how the process can be made fair so that legal allegations based on forensic evidence can be reasonably addressed in advance of trial. The argument was raised that forensic science is different than lay testimony that these recommendations create a balanced approach where the defense attorney can request information and therefore is well within the scope of the Commission. It was further stated that the courts have been effective in dealing with these issues but that the Commission should not shy away from advising the courts on disclosure because not all judges will grant requests and only 5% of attorneys have a background in science. If transparency is the goal then a structure for transparency should be designed for the courts. Concerns were raised that scientists who sit on the Commission are being asked to opine on very specific legal technicalities that they don't have the expertise to provide meaningful analysis of and it appeared as though the Commission was being asked to amend the Federal Rules of Evidence.

A concern was stated that if a full report is not disclosed, then what is the point? You can have the most brilliant report, but current rules only require that a summary is disclosed. It was clarified that the intent of the policy was not to recommend so much that the rules change, but that the AG, through his prosecutors, make sure that these kinds of reports are disclosed, and that these procedures be made known. The AG has the power to do that and on several occasions has gone beyond what the law requires because he believes it's important for the public interest. There was further discussion from the Commission members expressing concern for the scope of the recommendation but understanding that the intent was transparency and open full and fair discovery.

## **Training on Science and Law Subcommittee Report**

### **Professor Jim Gates and Judge Barbara Hervey, Co-Chairs**

**Professor Gates** discussed how the Subcommittee has worked on the general principles to be prepared to create training for judges. The group has been meeting via teleconference and is made up of scientists, judges and academics. He emphasized that the Subcommittee will do their best to take the output from the Commission and create training information for judges.

**Judge Hervey** mentioned how large the training project is because there are many groups to train. It is not just about the judges, lawyers, and the scientists, but also law enforcement. She requested input from all of the Commissioners on how the Subcommittee can assist with training. They have discussed creating a core curriculum. She also requested input on certification.

Core Curriculum Suggestions:

- 1) Science and Scientific Method
- 2) NAS Report
- 3) Basics of Forensics
- 4) Rules of Evidence
- 5) Understanding Gatekeeping
- 6) Role of Judges
- 7) Document Report
- 8) Probability and Statistics
- 9) Collection and Preservation of Evidence
- 10) Hair Analysis
- 11) Protocols for Notification to Affected People
- 12) Ineffective Assistance for Expert Witnesses

The Subcommittee plans to consider funding issues for training. The group is working with the American Association for the Advancement of Science to explore issues of educational assistance.

Questions from Commission Members

Several Commissioners stressed the importance of including post-conviction preservation of evidence. Challenges related to expert witness requests and the processes by which expert witnesses can be obtained by the defense was also discussed. There was interest in creating a core curriculum for FSSPs as well.

## Working Lunch: Identifying the Culprit: Assessing Eyewitness Identification

**Judge Jed Rakoff and Dr. Thomas Albright, Co-Chairs**, the National Academies Committee on Scientific Approaches to Understanding and Maximizing the Validity and Reliability of Eyewitness Identification in Law Enforcement and the Court

**Dr. Albright** discussed the report and its key findings and recommendations. He explained that eyewitness identification failures can undermine trust in the criminal justice system. Eyewitness identification can be affected by visual perception, memory, stress, lighting, and differences in race and weapon focus.

Findings and recommendations to establish best practices for the law enforcement community:

- 1) Training for Law Enforcement Officers in Eyewitness Identification
- 2) Implementation of Double Blind Lineup and Photo Array Procedures
- 3) Develop and Use Standardized Witness Instructions
- 4) Document Witness Confidence Judgments
- 5) Video Recording the Witness Identification Process

Findings and Recommendations to strengthen the value of eyewitness identification evidence in court:

- 1) Conduct Pretrial Judicial Inquiry
- 2) Make Juries Aware of Prior Identifications
- 3) Use Scientific Framework Expert Testimony

- 4) Use Jury Instructions as an Alternative Means to Convey Information
- 5) Recommendation to improve the scientific foundation underpinning eyewitness identification research:
- 6) Establish a National Research Initiative on Eyewitness Identification
- 7) Conduct Additional Research on System and Estimator Variables.

## Medicolegal Death Investigation Subcommittee Report

### Dr. Vince DiMaio and Mr. John Fudenberg, Co-Chairs

**Mr. Fudenberg** described the Subcommittee which is made up of 12 members 6 of whom are members of the Commission. The Subcommittee is working on 3 priority projects which include accreditation and certification, increasing supply of forensic pathologists and networking medicolegal offices.

**Dr. DiMaio** discussed the supply of Board Certified Forensic Pathologists. He stated that there are approximately 500 Board Certified Forensic Pathologists among whom the average age is 52. There are not many doctors currently training to become forensic pathologists – perhaps 41 per year and 21% of these do not end up practicing. These numbers decrease over the years because of low salaries, poor working conditions and burn-out. There are 36 accredited forensic pathology programs in the US. Many forensic pathologists are prohibited from taking outside jobs to supplement incomes because it may create a conflict of interest.

**Mr. Fudenberg** gave a brief explanation of the Medicolegal profession. There are two primary systems in the United States: the coroner system and the medical examiner system.

- 1) A coroner is usually elected and acts as administrator of the office. They either contract with a forensic pathologist or they have one on staff to do autopsies, coroners do not conduct autopsies.
- 2) The medical examiner system is usually led by a forensic pathologist who is a department head. They act as the administrator of the office and may or may not conduct autopsies.

Both systems employ medicolegal investigators who go onsite and conduct investigations. Both types of offices should be accredited and practitioners should become certified. Requiring accreditation and certification will lead to restructuring of underperforming offices throughout the country and will promote improvements. Medicolegal offices determine the cause and manner of death, identify the decedent, and notify the next of kin. They are independent from law enforcement.

The Subcommittee will introduce a proposal at the next Commission meeting to reinstate the funding for the networking of medicolegal offices throughout the country that the CDC used to have in place.

The Subcommittee proposed a draft recommendation that contains three main points. The goal of which is to get medicolegal offices accredited and practitioners to become certified.

- 1) All medicolegal death investigators be certified within 5 years.
- 2) All offices, facilities or institutions performing medicolegal death investigation activities will be accredited within 5 years.
- 3) The Department of Justice's Office of Justice Programs will support a grant program or allow funds within existing programs to be utilized to help defray the costs associated with certification and accreditation to ensure compliance.

The Subcommittee estimates that there are 5,000 to 8,000 people who would require certification and recommends that the DOJ put aside \$2,000,000 to \$3,000,000 per year to help defray the cost of accreditation.

#### Questions from Commission Members

A question arose regarding why a grant program be created when these costs should be absorbed by the operating budget of the offices? It was stated the ABA made the recommendation that these offices should be accredited and adequately funded 10 years ago and it was not very effective. Concern was expressed about funding for accreditation from a non-accredited, accreditation body and is not sure that it is an effective mechanism to set up reimbursement program to defray cost and to encourage offices to seek accreditation. He suggests that a views document might be more appropriate since this will primarily effect local jurisdictions.

It was articulated that the group is has a working definition of a medicolegal Investigator and that the coroner's office does make requests for autopsies but these requests are often driven by budget constraints not necessarily by science. The Subcommittee is working directly with the CDC to encourage the CDC to revitalize this program.

There was concern expressed about the need for grant funding because there are now two different documents coming from the Commission that request funding. It was articulated that the medicolegal community is historically underfunded compared to other forensic science disciplines which is why they require financial support.

It was recommended that existing accreditation programs be used and that the Subcommittee turn the singular document into two separate accreditation and certification recommendations. Because of the questions surrounding accreditation standards, NIST offered host a webinar for the Commission for educational purposes on ISO standards.

2:00 p.m.: Afternoon break

## Proposal on the Survey Law Enforcement Forensic Science Service Providers

**Ms. Erica Smith, Chief, Law Enforcement Statistics Unit and Mr. Matthew DuRose, Senior Statistician, Bureau of Justice Statistics**

**Ms. Smith** explained that the Bureau of Justice Statistics (BJS), has fielded a survey to collect information on Publicly Funded Forensic Crime Laboratories three times and they have collected information on staffing levels, budgets, types of forensic functions performed, workloads, backlogs and quality assurances.

BJS is going out into the field again with a new survey in 2015. Many of the questions that will be asked are things that the Commission is going to be interested in. BJS will be surveying 400 labs that are publicly funded. There are two opportunities for us to engage in this type of data collection for measuring LEA engagement in forensic services:

- 1) Utilize a newly developed sample-based data collection vehicle it would yield results more quickly and provides a broad understanding of the issues. It is not suited to a detailed examination of the component topics.

The LERIS, Law Enforcement Rapid Information System, is designed to conduct ongoing data collection from a nationally representative sample of law enforcement agencies using field

surveys that are short (approximately 30 questions; burden of 20 minutes or less) and provide findings by December 2015.

- 2) Employ a traditional 2-stage survey design methodology using the LEAFSS, Law Enforcement Agency Forensic Services Survey, which could address concepts more comprehensively. It would require significantly greater resources to field, including additional funding and the survey results would not be realized for several years by December 2018.

### Questions and Suggestions from Commission Members

There was some discussion that the survey desired by the Commission should be much broader covering 17,000 – 20,000 law enforcement agencies well beyond the scope of 400 publicly funded crime labs and that the survey timeframes to results and findings are too long. It was decided that in the interests of time and funding it would be beneficial to work within the constraints of the newly developed LERIS system for faster turn around and that multiple surveys could be employed to create the depth of data collection required by the Commission.

An *ad-hoc* group was formed to work with the BJS on crafting a data collection instrument. The members are **Heustis, Manzollilo, Redle, LaPorte** and **Fienberg**.

## Interim Solutions Subcommittee Report

### Mr. Dean Gialamas and Mr. Peter Neufeld, Co-Chairs

**Mr. Gialamas** reviewed the membership of the Subcommittee. There are 14 members: 12 of which are Commissioners. They have met via conference call and have held an in-person meeting. The Subcommittee's priorities are creating:

- 1) Definitions
- 2) A National Code of Professional Responsibility
- 3) AFIS Interoperability
- 4) Misleading Terms
- 5) Reporting Requirements
- 6) Root Cause Analysis
- 7) Quality Control for Records
- 8) Enterprise Wide Proficiency Testing

The Subcommittee will be sun-setting work on the misleading terms, limitations of opinions and conclusions and reporting requirements because of duplicative work in other Subcommittees.

**Adam Becnel** and **Marc LeBeau** discussed the Subcommittee's current work on definitions. Two definitions have been submitted to the Commission but the other definitions the group is working on are conclusions, opinion and interpretation. The challenge to creating these definitions is that there is a problem finding primary source material. It was requested that the Commissioners forward potential information sources.

It was suggested that they add a definition for "science" to the list.

**Marilyn Huestis** and **Marc LeBeau** discussed the progress on the National Code of Professional Responsibility. The Subcommittee began with an IWG (developed by the White House Subcommittee

on Forensic Science) product and there are three areas with which the group has struggled - scope, enforcement, and the responsibility to correct errors. There has also been discussion of the three types of errors – unintentional, malpractice, and incompetence.

**Mr. Gialamas** discussed the Subcommittee’s work on AFIS Interoperability. The group has not had time to digest the new OSTP report, but it appears to be very consistent with the group’s work. The Subcommittee would like to take time to consider public comments on the OSTP report as they create a recommendation.

**Mr. Neufeld** discussed progress on Root Cause Analysis. The Subcommittee is working on a draft document, and the intention is to come up with a plan with the triggers for Root Cause Analysis, identify the core content that can be used to provide educational materials on what a Root Cause Analysis should look like and some kind of analysis of the types of remediation. The Subcommittee should have a draft at the next meeting.

**Ms. Leighton** discussed the draft that is being worked on for the Transparency of Crime Lab Quality Records, which is pending further critique by the Subcommittee.

**Mr. Becnel** and **Mr. LeBeau** presented the two proposed definitions to the Commission:

**Forensic Science** – The application of scientific practices to the recognition, collection, analysis and interpretation of physical evidence for criminal and civil law or regulatory purposes.

**Forensic Science Service Provider** – A person or entity that (1) applies scientific practices to recognizing, collecting, analyzing or interpreting physical evidence and (2) issues test results, provides reports, or provides interpretations, conclusions, or opinions through testimony with respect to such evidence.

The definitions received 11 public comments thus far.

### Questions and Suggestions from Commission Members

It was agreed by one Commissioner that the definition is fine but the question is who uses the definitions? In other words, an individual doesn’t necessarily have to be a ‘scientist’ to use the label FSSP. It was acknowledged as a good point it is not automatic that individuals are using ‘science’ as a FSSP.

It was offered that Forensic Science Service Provider is the more important definition of the two and thinks that “acting in support of” criminal investigation is too overly inclusive. It doesn’t give people the perspective to know if they fall under this umbrella. It was clarified that the scope is intended to be broad so that others can refine the definition within their documents/operations. He requested input of alternate recommendations from the Commission.

One Commissioner offered an explanation for abstaining from voting on this item because of the word “science” in the definition. It was further explained that some disciplines haven’t demonstrated that they have adequate foundational scientific research. It was suggested to strike the word “science.”

It was offered that forensics should be thought of like medicine. Medicine didn’t come from the sciences; it came from practice. We shouldn’t shoe-horn forensics into science; it is instead its own thing. Doctors are practitioners delivering the best quality care available at the time. This is what we want from forensic practitioners. Science has something important to contribute, but it’s not the overarching thing. Forensics shouldn’t be restrained by science; science instead should strengthen forensics.

It was re-stated that the goal of the Subcommittee was to provide an interim solution. It is also understood that the definition should not inadvertently leave out a group that should be included.

Break 4:30 p.m.

## Commission Co-Chair Closing Comments

### Dr. Willie E. May, Co-Chair (NIST)

**Vice-Chair Butler** introduced the Commission's Subcommittee Co-Chair, Dr. May. He asked the Subcommittees to provide brief reports regarding their top priority issues.

**Co-Chair May** showed his appreciation for the Commission's efforts. He stated that the discussions that take place during these meetings are very important to the goal of creating a justice system that is fair and just.

**Human Factors Subcommittee – Professor Duster** reported that the Subcommittee has not yet been formed and it is expected to begin work in December. There will be a more thorough status report available at the next meeting.

**Accreditation and Proficiency Testing Subcommittee – Ms. Jackson** gave an update on the views document that is being worked on by the proficiency testing subgroup as well as the views document that is being worked on regarding critical steps to accreditation. The vast majority of the discussion was on their policy document regarding universal accreditation that was presented to the Commission. The Subcommittee will be working on adding detail to the document on timelines and people who act as consultants and will look at the public comments that have been received.

**Co-Chair May** asked the Commissioners if they were being provided with the resources required to get their work done. The response from the group was that they would like to have access to the ISO Standards and appreciated the assistance that has been provided with note taking.

**Scientific Inquiry and Research Subcommittee – Professor Bell** discussed the views document presented to the Commission on foundational literature. The Subcommittee will take the comments of the Commission and public input and have this document ready for the next meeting.

This views document is intended to be the foundation for directives documents which are planned to cover:

- 1) Implementation of standards getting them to the OSACs
- 2) Establishing a central formal point of contact to be responsible for follow up on policy and recommendations from the Commission to the OSACs
- 3) Forensic education with a discussion of a PhD in Forensic Science

**Reporting and Testimony Subcommittee – Mr. Redle** discussed efforts with looking at the issue of discovery and if it lies within the scope of the Commission's authority to act.

**Training on Science and Law Subcommittee – Professor Gates** discussed how the Subcommittee has created an outline of a core curriculum for the legal community and is in the process of nominating subject matter experts to help add detail. **Co-Chair May** asked if the Subcommittee would research creating training materials for the general public as they sit as jurors in trials.

**Medicolegal Death Investigation Subcommittee – Mr. Fudenberg** presented a proposal on accreditation and certification and funding to support this proposal. The Subcommittee received feedback from the Commission and will come back in January with an updated proposal. They are also

working on documents that addresses increasing the supply of Forensic Pathologists and networking the medicolegal jurisdictions.

**Interim Solutions Subcommittee – Mr. Gialamas** presented two definitions to the Commission and are working on a National Code of Professional Responsibility and hope to have that introduced at the next meeting. The Subcommittee is also working on AFIS Interoperability and has received some updates from OSTP. A subgroup on Root Cause Analysis is trying to define triggering events that would define a Root-Cause being needed and creating recommendations on a process on how to deal with errors or triggering events. The Subcommittee is also examining transparency issues with crime lab quality control records and considering enterprise-wide proficiency testing.

**Vice-Chair Butler** thanked the group for their diligence and hard work over the course of the meeting and in their Subcommittee deliberations.

**Vice-Chair Santos** reminded the group that an *ad-hoc* group had been created to work with the DOJ on a Survey of Law Enforcement.

## Public Comment

Facilitated by **Brette Steele**, Designated Federal Official

Pete Marone – Expressed a concern about the timelines for public comments.

## Wrap up

**Co-Chair Santos** stated that the comment period that is set up 15 days prior to the meeting and for 15 days after the meeting is working quite well. It is important to stay at a high level with the documents using non-prescriptive language. Documents and recommendations should be kept to one or two items so that they can be more effectively discussed.

Follow-up planned:

- 1) Reach out to the DAG's office to get an opinion on the scope of the Commission as it relates to discovery.
- 2) Work product development process will be defined further – it is proposed to be similar to the current structure.
- 3) Process for adjudication of public comments.
- 4) PowerPoint files from all presentations will be posted to the [NCFS website](#).
- 5) Sign up for [email notification](#) on the website.
- 6) Public comment period will reopen for another 15 days after the meeting.
- 7) Subcommittee membership list will be published on the [NCFS website](#).
- 8) Future dates for meetings Jan. 29<sup>th</sup> - 30<sup>th</sup> and April 30<sup>th</sup> - May 1<sup>st</sup>.
- 9) Next meetings will include voting records on revised work products.

5:10 p.m.: Meeting was adjourned by **Brette Steele**, the Designated Federal Official (DFO).

## Meeting Attendee List

	Last Name	First Name	Type	Title/Role	Organization
1	Bell	Suzanne	Commissioner	Associate Professor	West Virginia University
2	Bieber	Frederick	Commissioner	Professor	Harvard Medical School
3	Butler	John	Vice-Chair	NIST Fellow and Special Assistant to the Director for Forensic Science	National Institute of Standards and Technology
4	Crouse	Cecelia	Commissioner	Crime Laboratory Director	Palm Beach County Sheriff's Office
5	Czarnopys	Gregory	Commissioner	Deputy Assistant Director/ OST/Forensic Services	U.S. Department of Justice
6	Denton	M. Bonner	Commissioner	Professor	University of Arizona
7	DiMaio	Vincent	Commissioner	Consultant	private consultant in forensic pathology
8	Duster	Troy	Commissioner	Professor	University of California
9	Epstein	Jules	Commissioner	Professor	Widener University School of Law
10	Ferreira-Gonzalez	Andrea	Commissioner	Professor and Chair	Virginia Commonwealth University - Molecular Diagnostics
11	Fienberg	Stephen	Commissioner	Maurice Falk University Professor	Carnegie Mellon University
12	Fudenberg	John	Commissioner	Assistant Coroner	Clark County Office of Coroner/Medical Examiner
13	Gates	James	Commissioner	Professor	University of Maryland
14	Gialamas	Dean	Commissioner	Chief	Los Angeles County Sheriff's Department
15	Giannelli	Paul	Commissioner	Professor	Case Western Reserve University
16	Hervey	Barbara	Commissioner	Judge	Texas Court of Criminal Appeals
17	Howley	Susan	Commissioner	Public Policy Director	National Center for Victims of Crime
18	Hunt	Ted	Commissioner	Chief Trial Attorney	Jackson County (Kansas City) Prosecutor's Office
19	Jackson	Linda	Commissioner	Director	Virginia Department of Forensic Science
20	Kacavas	John	Commissioner	U.S. Attorney - District of New Hampshire	U.S. Department of Justice
21	King	Pam	Commissioner	Assistant State Public Defender	State of Minnesota
22	LeBeau	Marc	Commissioner	Chief Scientist - Scientific Analysis Section	Federal Bureau of Investigation
23	Leighton	Julia	Commissioner	General Counsel	Public Defender Service for the District of Columbia
24	May	Willie	Co-Chair	Acting NIST Director	National Institute of Standards and Technology
25	Neufeld	Peter	Commissioner	Co-Director	The Innocence Project
26	Redle	Matthew	Commissioner	Sheridan County Prosecuting Attorney	Sheridan County Attorney's Office
27	Santos	Nelson	Vice-Chair	Deputy Assistant Administrator	Office of Forensic Sciences, Drug Enforcement Administration

28	Steele	Brette	Designated Federal Official	Senior Advisor on Forensic Science and Senior Counsel	U.S. Department of Justice
29	Huestis	Marilyn	Ex Officio Member	Chief	National Institute on Drug Abuse
30	LaPorte	Gerry	Ex Officio Member	Director	National Institute of Justice, Office of Investigative and Forensic Sciences
31	Manzolillo	Patricia	Ex Officio Member	Laboratory Director	U.S. Postal Inspection Service
32	Rakoff	Jed	Ex Officio Member	U.S. District Judge	Southern District of New York
33	Weiss	Mark	Ex Officio Member	Division Director	National Science Foundation
34	Jones	Robin	Program Manager	National Commission on Forensic Science	U.S. Department of Justice
35	Weiss	Danielle	NIJ Staff	Lead Associate	National Institute of Justice
36	Motta	Gregg	Proxy for David Honey	Chief, Digital Evidence Unit	Federal Bureau of Investigation
37	Athanas	Karin	Public/SC Member	Program Manager	American Association for Laboratory Accreditation (A2LA)
38	Barretta	Michelle	Public	Project Assistant	American Association for the Advancement of Science
39	Becnel	Adam/Charles	Public/SC Member	Manager	Louisiana State Police
40	Boussoufi	Ahmed	Public	Gendarmerie National / National Institute of Criminalistics and Criminology	ICITAP
41	Brickell	Missye	Public	Professional Staff	U.S. Senate Commerce Committee
42	Brown	Catherine	Public	Vice President, Operations (Acting)	Collaborative Testing Services, Inc.
43	Bucht	Rebecca	Public	Forensic Advisor	ICITAP Algeria
44	Burrill	Julie	Public	Forensic Scientist	The Public Defender Service
45	Callaghan	Thomas	Public	Chief Biometric Scientist	Federal Bureau of Investigation
46	Cavanagh	Richard	Public	Director of the Office of Special Programs	National Institute of Standards and Technology
47	Chu	Sarah	Public	Senior Forensic Policy Advocate	The Innocence Project
48	Cohen	Kay	Public	Executive Director	National District Attorneys Association
49	Dahmani	Abdallah	Public	Student	University of Sciences and Technology, Houari Boumediene
50	Dawson	James	Public	Science Writer, Forensics	National Institute of Justice
51	Fabricant	M. Chris	Public	Director, Strategic Litigation	The Innocence Project
52	Farley	Sandra	Public	Executive Director, Government Relations Office	National Center for State Courts
53	Ferrell	Rebecca	Public	Biological Anthropology Program Director	National Science Foundation
54	Flynt	Clark	Public	Legislative Staff Assistant	U.S. Senate Judiciary Committee

55	Frankel	Mark	Public	Program Director	American Association for the Advancement of Science
56	Fried	Hannah	Public	Senior Counsel	U.S. Department of Justice
57	Gamette	Mathew	Public	Lab System Director	Idaho State Police
58	Greene	Mark	Public	Supervisory Program Manager	National Institute of Justice
59	Herman	Martin	Public	Senior Advisor	National Institute of Standards and Technology
60	Hollway	John	Public/SC Member	Executive Director	University of Pennsylvania Law School
61	Huffman	Katharine	Public	Principal	The Raben Group, LLC
62	Irazola	Seri	Public	Director, Office of Research and Evaluation	National Institute of Justice
63	Kafadar	Karen	Public/SC Member	Commonwealth Professor and Chair	University of Virginia
64	Kendall	Steven	Public	Program Officer	National Academy of Sciences
65	Khlar	Nabil	Public	General Directorate of National Security, Algeria	ICITAP
66	Leben	Deborah	Public/SC Member	Laboratory Director	U.S. Secret Service
67	Marone	Peter	Public/SC Member	Retired Director	Virginia Department of Forensic Science
68	Mayes	Mark	Public	Lieutenant	Kentucky State Police
69	McCleary	Nicole	Public	Associate Director	RTI International
70	Moloney	Megan	Public	Attorney	Federal Bureau of Investigation
71	Mouaci	Farid	Public	ICITAP Algeria	ICITAP
72	Nok	Andrew	Public	Professor	Ahmadu Bello University - Center on Neglected Tropical Disease and Forensic Biotechnology
73	Pronley	Alyssa	Public	Law Clerk	Office of Legal Policy, U.S. Department of Justice
74	Relimi	Redha	Public	General Directorate of National Security, Algeria	ICITAP
75	Renteria	Gabriella	Public	Intern	U.S. Department of Justice
76	Roberts	Maria	Public	Physical Scientist	Federal Bureau of Investigation
77	Runkle	Deborah	Public	Senior Program Associate	American Association for the Advancement of Science
78	Scheck	Barry	Public/SC Member	Co-Director	The Innocence Project
79	Schechter	Marvin	Public/SC Member	Attorney	Criminal Defense Bar
80	Schofreider	Jim	Public	Director	National Institute of Standards and Technology
81	Schwarting	Dawn Elizabeth	Public	Associate	Booz Allen Hamilton
82	Spanbauer	Alan	Public	Physical Scientist/Program Manager	National Institute of Justice
83	Sudkamp	Laura	Public	Laboratory Director	Kentucky State Police

84	Thomas	Sherran	Public	Project COR	National Institute of Justice
85	Triplett	Jeremy	Public/SC Member	Forensic Laboratory Supervisor	Kentucky State Police Forensic Laboratories
86	Tomberlin	Jeffrey	Public/SC Member	Associate Professor	Texas A&M University
87	Van Veeren	Elsbeth	Public	Lecturer in Political Science	University of Bristol
88	Wainscott	Kip	Public	Senior Counsel	U.S. Department of Justice
89	Waltke	Heather	Public	Associate Director	Office of Investigative and Forensic Sciences/NIJ
90	Weedn	Victor	Public/SC Member	Professor and Chair	George Washington University
91	Wilson	Justin	Public	Associate	The Raben Group
92	Word	Charlotte	Public/SC Member	Consultant	Charlotte Word
93	Wulff	Paula	Public/SC Member	Assistant General Counsel	Federal Bureau of Investigation
94	Zarita	Allaoua	Public	Gendarmerie National / National Institute of Criminalistics and Criminology	ICITAP
95	Albright	Thomas	Speaker	Professor	The Salk Institute for Biological Studies
96	DuRose	Matthew	Speaker	Statistician	Bureau of Justice Statistics
97	Gerhardt	Laura	Speaker	Intern	White House Office of Science and Technology Policy
98	Simoncelli	Tania	Speaker	Assistant Director for Forensic Science	White House Office of Science and Technology Policy
99	Smith	Erica	Speaker	Chief, Law Enforcement Statistics Unit	Bureau of Justice Statistics
100	Stolorow	Mark	Speaker	Director of the Law Enforcement Standards Office	National Institute of Standards and Technology