



GenomeID Forum  
Greenville, NC  
September 10, 2014

**National Commission on Forensic  
Science (NCFS) and  
Organization of Scientific  
Area Committees (OSAC) Update  
and  
Roads for Advanced Technologies Adoption**

John M. Butler, Ph.D.

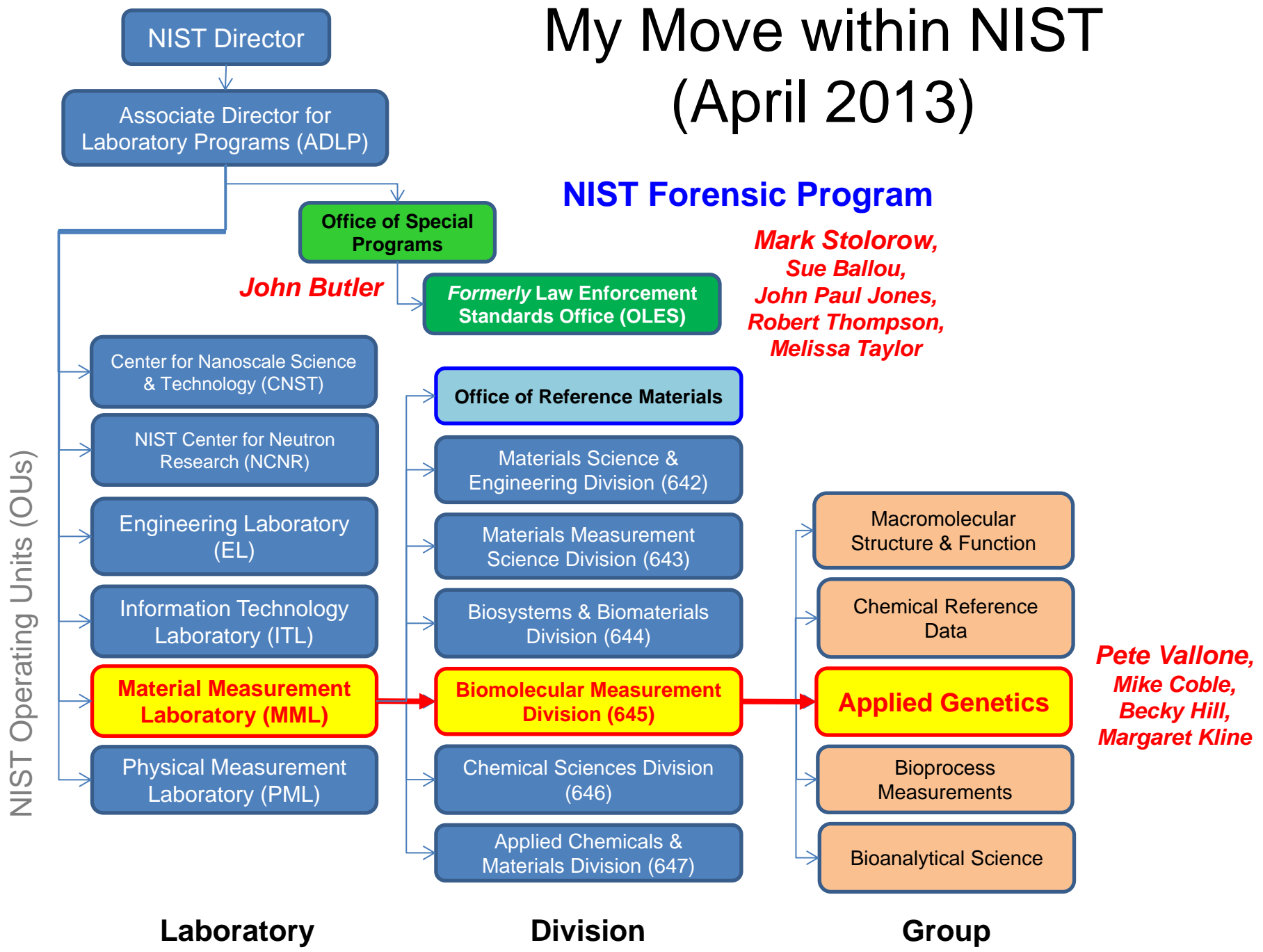
National Institute of Standards and Technology

NIST Fellow & Special Assistant to the Director for Forensic Science

Vice-Chair, National Commission on Forensic Science

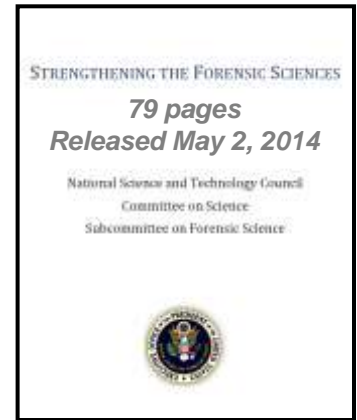
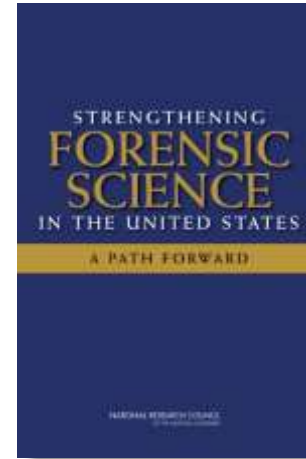


# My Move within NIST (April 2013)

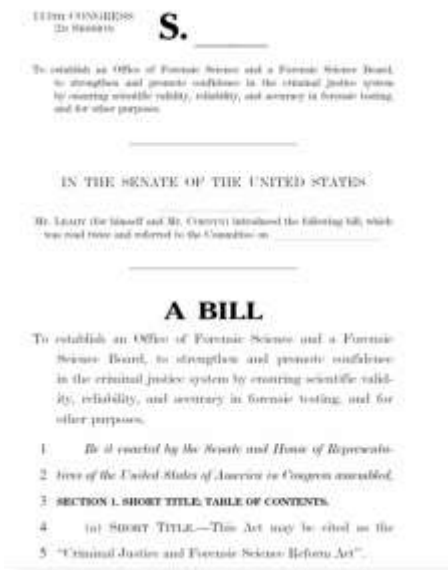


# Forensic Science Realignment

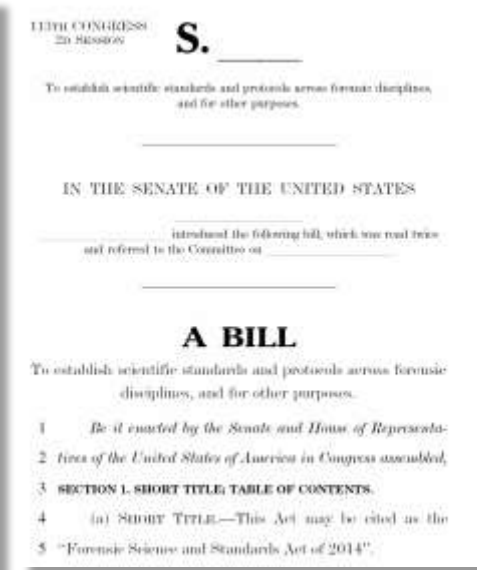
- NAS report – Feb 2009
- White House Subcommittee on Forensic Science (SoFS) – July 2009 to Dec 2012
- **DOJ/NIST Partnership**
  - **NCFS** (National Commission on Forensic Science)
  - **OSAC** (Organization of Scientific Area Committees)
- Pending Legislation (Senate)
  - Leahy Bill (Justice)
  - Rockefeller Bill (Commerce)
- FY14 New NIST Role
  - administer OSAC



[http://www.whitehouse.gov/sites/default/files/microsites/ostp/NSTC/strengthening\\_the\\_forensic\\_sciences\\_may\\_-\\_2014.pdf](http://www.whitehouse.gov/sites/default/files/microsites/ostp/NSTC/strengthening_the_forensic_sciences_may_-_2014.pdf)



**Criminal Justice and Forensic Science Reform Act (Leahy Bill)**



**Forensic Science and Standards Act (Rockefeller Bill)**

# February 3-4, 2014 was the first meeting of the **National Commission on Forensic Science**



37 Commissioners + DOJ/NIST Leadership Team  
(with ~100 public attendees)

# Webcast of Second NCFS Meeting

<http://www.nist.gov/forensics/national-commission-on-forensic-science-webcast.cfm>

National Commission on Forensic Science Meeting Part 1



So I'd like to welcome those who are viewing us via the Webcast.

02:55 / 02:00

English

The image shows a video player interface for a webcast. At the top, the title 'National Commission on Forensic Science Meeting Part 1' is displayed. The main content is a video frame of a conference room. A long table is set up with several people seated around it. A man in a dark suit is circled in red. The room features flags and a logo on the wall. Below the video frame, there is a subtitle: 'So I'd like to welcome those who are viewing us via the Webcast.' At the bottom of the video player, there is a progress bar showing '02:55 / 02:00', a play button, and a language dropdown menu set to 'English'.

# NCFS Members

Commissioner Biographies available at <http://www.justice.gov/ncfs/members.html>

## ***Co-Chairs:***

James M. Cole

**Willie E. May, Ph.D.**  
(Acting Director of NIST)

## ***Vice-Chairs:***

Nelson Santos

John Butler, Ph.D.

## ***Commission Staff:***

Brette Steele

Robin Jones

## ***Commission Members:***

Suzanne Bell, Ph.D.

Frederick Bieber, Ph.D.

Thomas Cech, Ph.D.

Cecelia Crouse, Ph.D.

Gregory Czarnopys

M. Bonner Denton, Ph.D.

Vincent Di Maio, M.D.

Troy Duster, Ph.D.

Jules Epstein

Stephen Fienberg, Ph.D.

Andrea Ferreira-Gonzalez, Ph.D.

John Fudenberg

S. James Gates, Jr., Ph.D.

Dean Gialamas

Paul Giannelli

Hon. Barbara Hervey

Susan Howley

Ted Hunt

Linda Jackson

John Kacavas

Pamela King

Marc LeBeau, Ph.D.

Julia Leighton

Hon. Bridget Mary McCormack

Peter Neufeld

Phil Pulaski

Matthew Redle

Michael "Jeff" Salyards, Ph.D.

Ryant Washington

## ***Ex-Officio Members:***

Hon. Jed Rakoff

David Honey, Ph.D.

Marilyn Huestis, Ph.D.

Gerald LaPorte

Patricia Manzolillo

Frances Schrotter

Kathryn Turman

Mark Weiss, Ph.D.

# National Commission on Forensic Science (NCFS)



Home » National Commission on Forensic Science

Printer Friendly

National Commission on Forensic Science Home

Members

Meetings

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Press Room

Contact the Commission



In 2013, the Department of Justice (DOJ) established the National Commission on Forensic Science, in partnership with the National Institute of Standards and Technology (NIST), to enhance the practice and improve the reliability of forensic science. This unique partnership draws upon each agency's core strengths to promote scientific validity, reduce fragmentation, and improve federal coordination of forensic science.

The Commission is co-chaired by Deputy Attorney General James M. Cole and NIST Acting Director and Acting Under Secretary of Commerce for Standards and Technology, Willie May. Nelson Santos, Deputy Assistant Administrator for the Office of Forensic Sciences at the Drug Enforcement Administration, and John M. Butler, Special Assistant to the NIST Director for forensic science, serve as vice-chairs. Brette Steele, Senior Advisor on Forensic Science and Senior Counsel to the Deputy Attorney General serves as the Designated Federal Officer and Robin Jones, Consultant within the Department of Justice, serves as Program Manager.

The Commission includes federal, state and local forensic science service providers; research scientists and academics; law enforcement officials; prosecutors, defense attorneys and judges; and other stakeholders from across the country.

## GOVERNING DOCUMENTS

Charter

Bylaws

GENERAL INFORMATION  
NATIONAL COMMISSION  
ON FORENSIC SCIENCE

**CONTACT**

**Brette Steele**  
Brette.L.Steele@usdoj.gov

**By Phone:**  
(202) 305-0180

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**James M. Cole**  
Deputy Attorney General  
**DOJ Co-Chair**



**Willie E. May**  
Acting Director of NIST  
**New NIST Co-Chair**



**Patrick D. Gallagher**  
NIST Director (2009-2014)  
**Initial NIST Co-Chair**  
Left NIST → Chancellor of Pitt  
<http://www.news.pitt.edu/chancellorelect>

# NCFS Leadership and Staff Support



**Nelson A. Santos**  
Vice-Chair (DOJ)



**John M. Butler**  
Vice-Chair (NIST)



**Brette L. Steele**  
Designated Federal Official



**Robin W. Jones**  
Program Manager



# NCFS Co-Chairs and OSTP Director address the first Commission meeting

NIST Director  
Pat Gallagher

Deputy Attorney General  
James Cole

OSTP Director  
John Holdren



# Judge Harry T. Edwards (co-chair of the 2009 NAS Report) addresses the National Commission on Forensic Science at its first meeting on February 3, 2014





## Informational Briefings

- **Judge Harry Edwards** spoke on findings from the 2009 NAS report
- Bureau of Justice Statistics researcher **Matt DuRose** reviewed the 2009 census of U.S. forensic laboratories



# White House Subcommittee on Forensic Science

committee chairs discuss outcome of work  
conducted from 2009 to 2012

**Patricia Manzolillo**

U.S. Postal Service  
Forensic Laboratory



**Accreditation  
& Certification**

**Dean Gialamas**

LA County Sheriff's  
Office Crime Lab



**Proficiency  
Testing**

**Jeff Salyards**

Defense Forensic  
Science Center



**Research &  
Development**

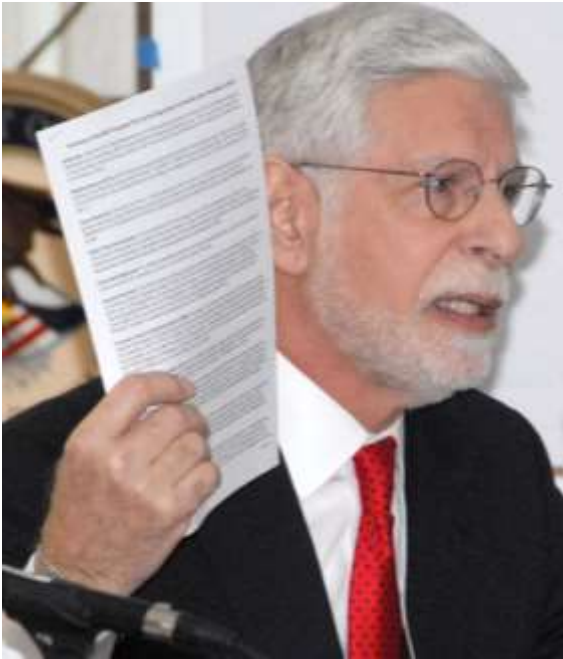
**Gerry LaPorte**

National Institute  
of Justice



**Documentary  
Standards**

## Mark Stolorow (NIST) introduces the Organization of Scientific Area Committees (OSAC) plan



For more information, see <http://www.nist.gov/forensics/osac.cfm>

## Commission discussions were led by Vice-Chairs John Butler (NIST) and Nelson Santos (DOJ)



*Discussed issues and developed subcommittee topics*

# 6 Initial NCFS Subcommittees Formed

1. Accreditation and Proficiency Testing
2. Interim Solutions
3. Medico-legal Death Investigation
4. Reporting and Testimony
5. Scientific Inquiry and Research
6. Training on Science and Law

**A human factors subcommittee** was recommended at the second meeting and was initiated during the third meeting

# MEETING TWO: May 12-13, 2014

Open to public and [webcast](#)

## AGENDA ITEMS:

- **Panel Discussions:** Human Factors & Cognitive Bias, Ethics in Forensic Science
- **Subcommittee Reports**
- OSAC Update/Report



# Human Factors and Cognitive Bias

## Panel Discussion



**Deborah Boehm-Davis**

Dean, College of Humanities and Social  
Sciences and University Professor,  
Department of Psychology,  
George Mason University



**John Collins**

President,  
Forensic Foundations Group



**Michael Risinger**

John J. Gibbons Professor of Law,  
Seton Hall University School of Law



**David H. Kaye**

Distinguished Professor of Law  
and Weiss Family Faculty Scholar,  
Penn State University,  
Dickinson School of Law

# Ethics and Forensic Science Panel Discussion



**J.C. Upshaw Downs**  
Coastal Regional Medical Examiner,  
Georgia Bureau of Investigation



**Rob Lesnevich**  
Director, Forensic Science Laboratory,  
US Treasury Inspector General for Tax Administration

# OSAC Update



**Mark D. Stolorow**  
Director of OSAC Affairs  
NIST Office of Special Programs



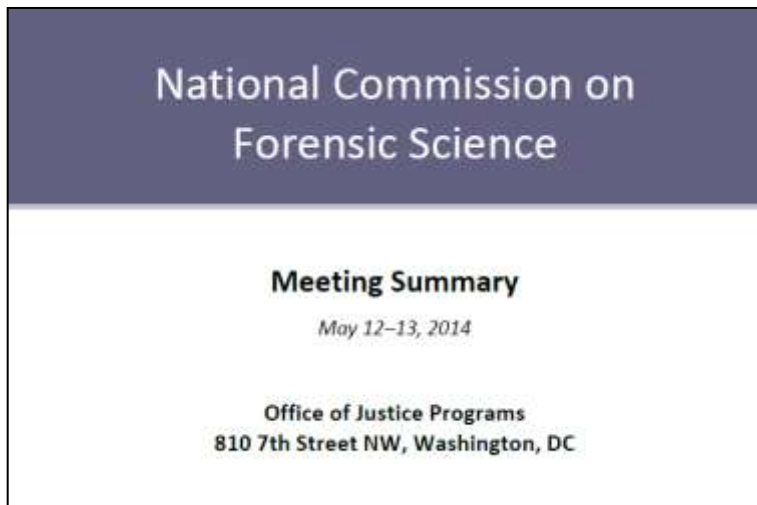
**Willie E. May**  
Acting Director of NIST  
**New NIST Co-Chair**

# NCFS Meeting Materials Available

<http://www.justice.gov/ncfs/meeting-materials.html>

## Meeting Summary

23 page pdf document



## Speaker Slides (pdf files)



**MEETING TWO**

References **Listing of 22 references provided to Commissioners**

**Human Factors and Cognitive Bias in Forensic Science**  
Deborah Boehm-Davis, Dean, College of Humanities and Social Sciences and University Professor, Department of Psychology, George Mason University

John Collins, President, Forensic Foundations Group

**The Need for Sequential Unmasking**  
Michael Risinger, John J. Gibbons Professor of Law, Seton Hall University School of Law

David H. Kaye  
Distinguished Professor of Law and Weiss Family Faculty Scholar, Penn State University, Dickinson School of Law

**Ethics and Forensic Science**  
J.C. Upshaw Downs, M.D., Coastal Regional Medical Examiner, Georgia Bureau of Investigation

Rob Lesnevich, Director, Forensic Science Laboratory, US Treasury Inspector General for Tax Administration

**Update on the Organization of Scientific Area Committees**  
Mark Stolorow, Director of OSAC Affairs, Office of Special Programs, National Institute of Standards and Technology

# NCFS Meeting 3 Topics

August 26-27, 2014

- Amended Bylaws Reviewed
  - Vote passed on a directive to survey police forensic units
- Cognitive Bias and Human Factors
  - Speakers: Itiel Dror and Bill Thompson
  - **Human Factors Subcommittee formed**
- Latent Print Automated Fingerprint Identification System (AFIS) Interoperability
  - Speakers: Melissa Gische, Austin Hicklin, Lauren Reed, and David Russell
- UK Regulator Andrew Rennison to share lessons learned from the United Kingdom
- Role of Accreditation in Forensic Science
  - Speakers: Beth Mishalanie, Ross Randlett, Roger Klein
- Subcommittee Reports

# Human Factors and Cognitive Bias Panel Discussion



**Itiel Dror**

Cognitive Consultants International  
& University College London



**William Thompson**

University of California, Irvine  
School of Social Ecology

## Articles Shared with Commissioners:

Dror, I.E. (2013) Practical solutions to cognitive and human factor challenges in forensic science. *Forensic Science Policy & Management*, 4:1-9.

Thompson, W.C., et al. (2013). The role of prior probability in forensic assessments. *Frontiers in Genetics*, 4 (article 220): 1-3.

Thompson, W.C. (2013). Modeling domain-relevance: what facts should experts ignore. DRAFT PAPER.

# Latent Print Automated Fingerprint Identification System (AFIS) Interoperability Panel Discussion



**Austin Hicklin**  
Fellow, Noblis



**Melissa Gische**  
Forensic Examiner  
Latent Print Operations Unit  
FBI Laboratory



**Lauren Reed**  
Director  
U.S. Army Crime Laboratory



**David Russell**  
Director  
Northern Virginia Regional  
Identification System (NOVARIS)

# The Role of Accreditation in Forensic Science Panel Discussion



**Beth Mishalanie**  
Senior Chemist and Quality Manager  
Office of Criminal Enforcement  
Environmental Protection Agency



**Lt. Ross Randlett**  
Prince William County  
Police Department



**Roger Klein**  
Medical Director  
Cleveland Clinic





## **UK Forensic Science Regulator Andrew Rennison**

- Shared lessons learned from the United Kingdom from his experience covering Feb 2008 to Aug 2014
- Next Forensic Science Regulator will be Dr. Gillian Tully (former head of research at the Forensic Science Service)

# Future NCFS Meeting Dates

<http://www.justice.gov/ncfs>

**Meeting 4: October 28-29, 2014**  
**Meeting 5: January 29-30, 2015**  
**Meeting 6: April 30-May 1, 2015**

# NCFS Subcommittees

Each NCFS subcommittee has included a few individuals beyond the Commissioners

*where much of the Commission work will occur...*

**1 Accreditation and Proficiency Testing**  
*Co-chairs: Linda Jackson & Patricia Manzollilo*  
*DOJ rep: Nelson Santos*

**2 Interim Solutions**  
*Co-chairs: Dean Gialamas & Peter Neufeld*  
*DOJ rep: Marc LeBeau*

**3 Medico-Legal Death Investigation**  
*Co-chairs: John Fudenberg & Vince Di Maio*  
*DOJ rep: Kathryn Turman*

**4 Reporting and Testimony**  
*Co-chairs: Judge Jed Rakoff & Matt Redle*  
*DOJ rep: Gerry LaPorte*

**5 Scientific Inquiry and Research**  
*Co-chairs: Suzanne Bell & Jeff Salyards*  
*DOJ rep: Gerry LaPorte*

**6 Training on Science and Law**  
*Co-chairs: Judge Barbara Hervey & Jim Gates*  
*DOJ rep: Greg Czarnopys*

**7 Human Factors** *Formed at Aug 2014 meeting*  
*Co-chairs: Judge Bridget McCormack & Troy Duster*  
*DOJ rep:*

Subcommittee Groups

Report Content

General Issues of Terminology

Probabilistic Statements

Problematic or Misleading Terms

Legal Issues

*Subcommittee products will be brought before the full Commission for discussion and a vote*

# Organization of Scientific Area Committees (OSAC)

Forensic discipline-specific guidance groups administered by NIST



# Organization of Scientific Area Committees (OSAC)

## Forensic Science Standards Board (FSSB)

Legal Resource  
Committee (LRC)

Quality Infrastructure  
Committee (QIC)

Human Factors  
Committee (HFC)

**SAC**  
Biology/DNA

**SAC**  
Chemistry/  
Instrumental Analysis

**SAC**  
Crime Scene/  
Death Investigation

**SAC**  
IT/Multimedia

**SAC**  
Physics/Pattern

DNA Analysis Sub1

DNA Analysis Sub2

Wildlife Forensics Sub

Controlled Substances Sub

Fire Debris and Explosives  
Sub (lab)

Geological Materials Sub

Gunshot Residue Sub

Materials (Trace) Sub

Toxicology Sub

Anthropology Sub

Disaster Victim  
Identification Sub

Dogs and Sensors Sub

Fire Scene and  
Explosives Sub

Medical/Legal Death  
Investigation Sub

Odontology Sub

Facial Identification Sub

Imaging Technologies Sub

Speaker Recognition Sub

Digital Evidence Sub  
*(to be added - 9/8/14)*

Blood Stain Pattern  
Analysis Sub

Friction Ridge Sub

Firearms & Toolmarks  
Sub

Footwear  
& Tire Tread Sub

Questioned Documents  
Sub

SAC = Scientific Area Committee  
Sub = Subcommittee

# Understanding the OSAC Levels

## Forensic Science Standards Board (FSSB)

- Set policy, rules, priorities for OSAC
- Manage OSAC Registry of Approved Standards and Approved Guidelines

## Legal Resource, Quality Infrastructure, Human Factors Committees

- Provide advice across all forensic science and discipline committees

## Scientific Area Committees

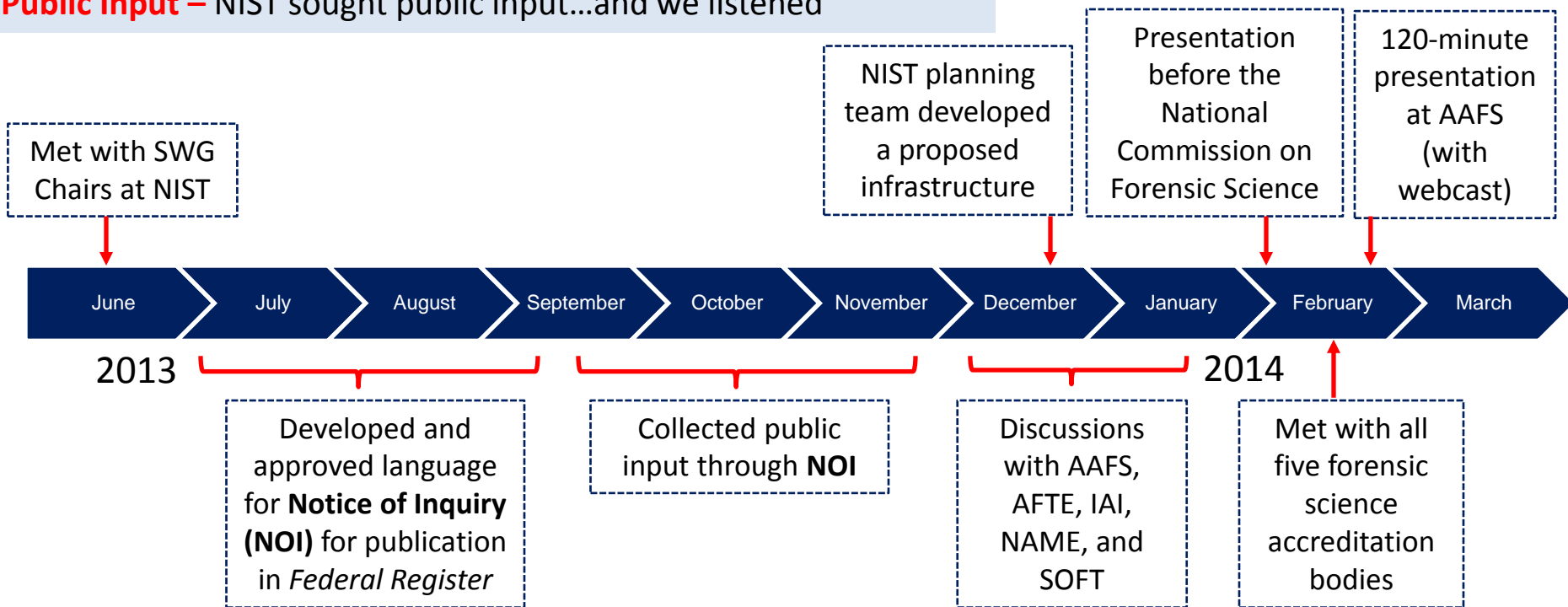
- Manage work within a scientific area (harmonize/leverage across related disciplines)
- Adopt and approve scientific area standards, (e.g., terminology, reporting requirements, conclusion statements)

## Discipline Specific Subcommittees (Working Groups)

- Identify and develop (with an SDO or the canvass method) standards & guidelines for discipline

# Organization of Scientific Area Committees (OSAC) Input Timeline

**Public Input** – NIST sought public input...and we listened



## Key Values

- Scientifically valid (researchers and statisticians)
- Linked to standards developers & accreditation bodies
- Practitioner generated (forensic scientists)
- Courtroom connected (legal input)

# Notice of Inquiry (NOI) Responses Received

In general, the responses support the new structure.

- **82 responses received**
  - 12 SWGs commented
  - 15 other groups including ASCLD, CAC, CFSO, IAI, Innocence Project, NACDL
  - More than a dozen labs and a half dozen companies
  - Individuals from 21 states and four countries (UK, Canada, Germany, and Australia)
- **Public posting of comments on [NIST.gov/forensics](https://www.nist.gov/forensics)**
- **Highlights:**
  - *Practitioner voice should be a major player*
  - *Strongly urged to include all forensic science disciplines*
  - *Concern about funding (no “pay-to-play” fees)*
  - *Interest in consistent and open support for web postings*
  - *Interest in face-to-face and virtual meetings*
  - *Encouragement to include existing professional organizations*



# OSAC Launch

- February 4, 2014 announcement to NCFS
- The OSAC will be a **collaborative body of more than 600 forensic science practitioners and other experts** who represent all levels of the government, academia and industry.
- Establishing OSAC to strengthen the nation's use of forensic science by:
  - supporting the development and promulgation of forensic science **consensus documentary standards** and guidelines
  - determining each forensic discipline's **research and measurement standards needs**
  - ensuring that a **sufficient scientific basis** exists for each discipline

# OSAC Events and Information



NIST Home > Forensics > Organization of Scientific Area Committees

[www.nist.gov/forensics/osac.cfm](http://www.nist.gov/forensics/osac.cfm)



## Organization for Scientific Area Committees (OSAC)

NIST is working with the forensic science community to establish the new Organization for Scientific Area Committees (OSAC). OSAC will coordinate development of standards and guidelines for the forensic science community to improve quality and consistency of work in the forensic science community. View the current **organization chart**. Click on the links below to learn about OSAC developments. See our **FAQs for OSAC**.

**July 7, 2014** – Presentation slides for first FSSB virtual meeting (opens PDF)

**June 26, 2014** – NIST Names Members to First Forensic Science Standards Board (news release)

**May 14, 2014** – Forensic Committee Application Closes for 2014; Candidates May Apply for 2015

**May 14, 2014** – OSAC Update Presented to National Commission on Forensic Science, presentation slides (opens PDF)

**April 22, 2014** – NIST Seeks Applicants to Join Forensic Science Committees (news release)

**April 11, 2014** – Calling Forensic Scientists: Apply Now to Join the NIST Organization of Scientific Area Committees (news update)

**April 11, 2014** – The OSAC Roles and Responsibilities document is now available.

**April 11, 2014** – Application form for NIST Organization of Scientific Area Committees is online. Apply now.

**March 18, 2014** – Application Form for NIST Organization of Scientific Area Committees Coming Soon (news update)

**March 18, 2014** – Updated summary of the NIST Plan for the Organization of Scientific Area Committees (pdf)

**Feb. 18, 2014** – NIST Forensic Science team gave a panel presentation at the American Academy of

**1313 applicants from  
April 11 to May 11  
(>150 for DNA)**

**FSSB announced June 26**

**Feb. 18, 2014** – NIST Forensic Science team gave a panel presentation at the American Academy of Forensic Sciences Annual Meeting.

- View the recorded Webcast on New Forensic Scientific Area Committees
- Presentation slides (PDF)

**Feb. 14, 2014** – NIST announces Feb. 18 Webcast on New Forensic Scientific Area Committees

**Feb. 7, 2014** – NIST Presents an Infrastructure Plan to Strengthen Forensic Science Committees

**Feb. 7, 2014** – Revised slide presentation on OSAC (pdf)

**Feb. 7, 2014** – 3-page summary of the NIST Proposed Plan for the Organization of Scientific Area Committees (pdf)

**Feb. 4, 2014** – Slide presentation on OSAC to the National Commission on Forensic Science (pdf)

**Feb. 4, 2014** – Public Comments on NIST Notice of Inquiry: Possible Models for the Administration and Support for Forensic Guidance Groups (opens pdf 8MB)

**Sept. 27, 2013** – NIST Invites Comments on Structure of Forensic Science Guidance Groups (news release)

## Forensic Science

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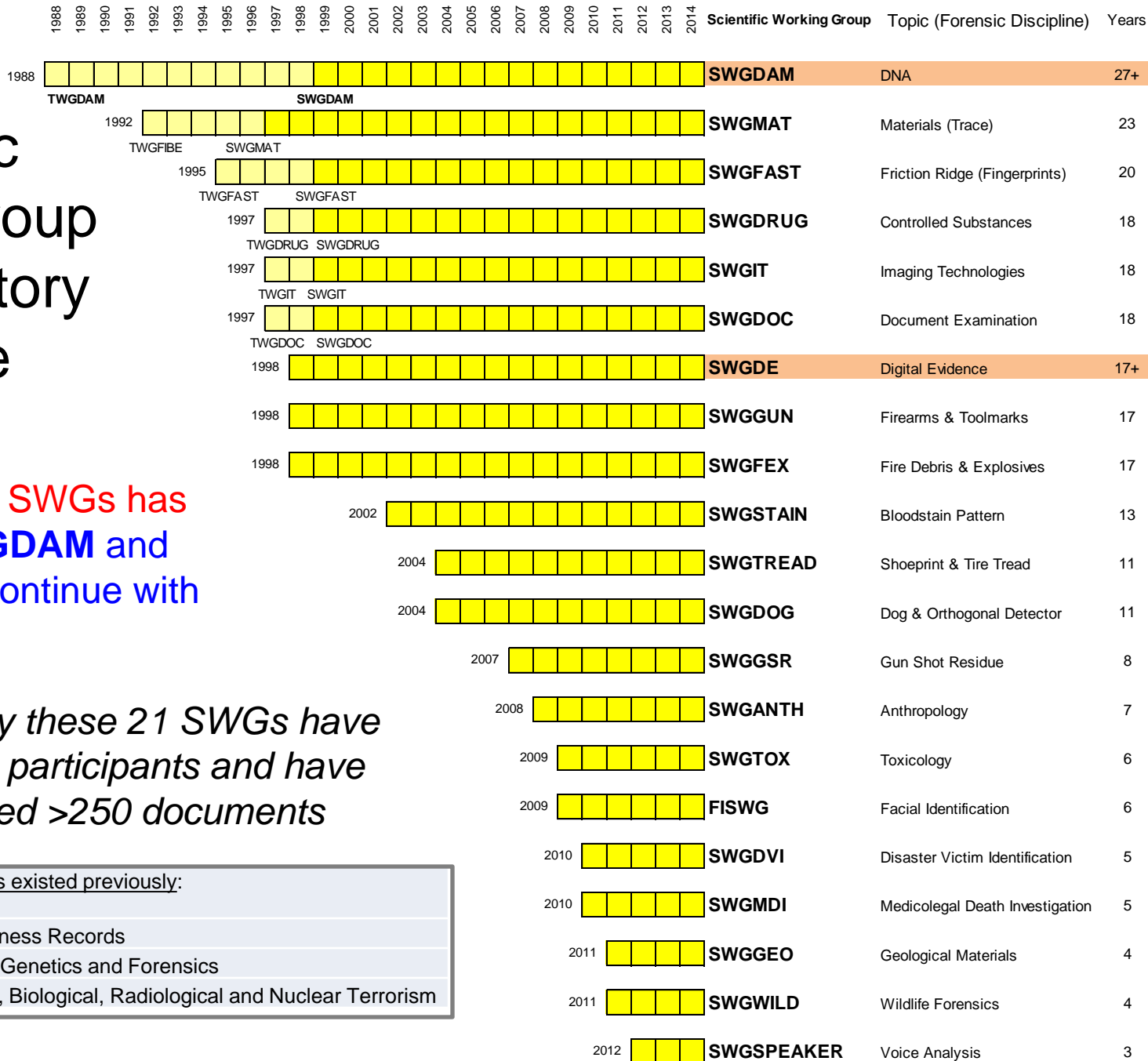


## Contact

### Office of Special Programs

100 Bureau Drive, Stop 4701  
Gaithersburg, MD 20899-8102  
301-975-2756 or  
301-975-2757

# Scientific Working Group (SWG) History Timeline



NIJ funding of SWGs has stopped; **SWGAM** and **SWGDE** will continue with FBI funding

*Collectively these 21 SWGs have had >750 participants and have produced >250 documents*

At least three other SWGs existed previously:

<b>SWGIBRA</b>	Illicit Business Records
<b>SWGMPF</b>	Microbial Genetics and Forensics
<b>SWGCBRN</b>	Chemical, Biological, Radiological and Nuclear Terrorism

FSSB appointed June 26, 2014

QIC, LRC, HFC – July 16

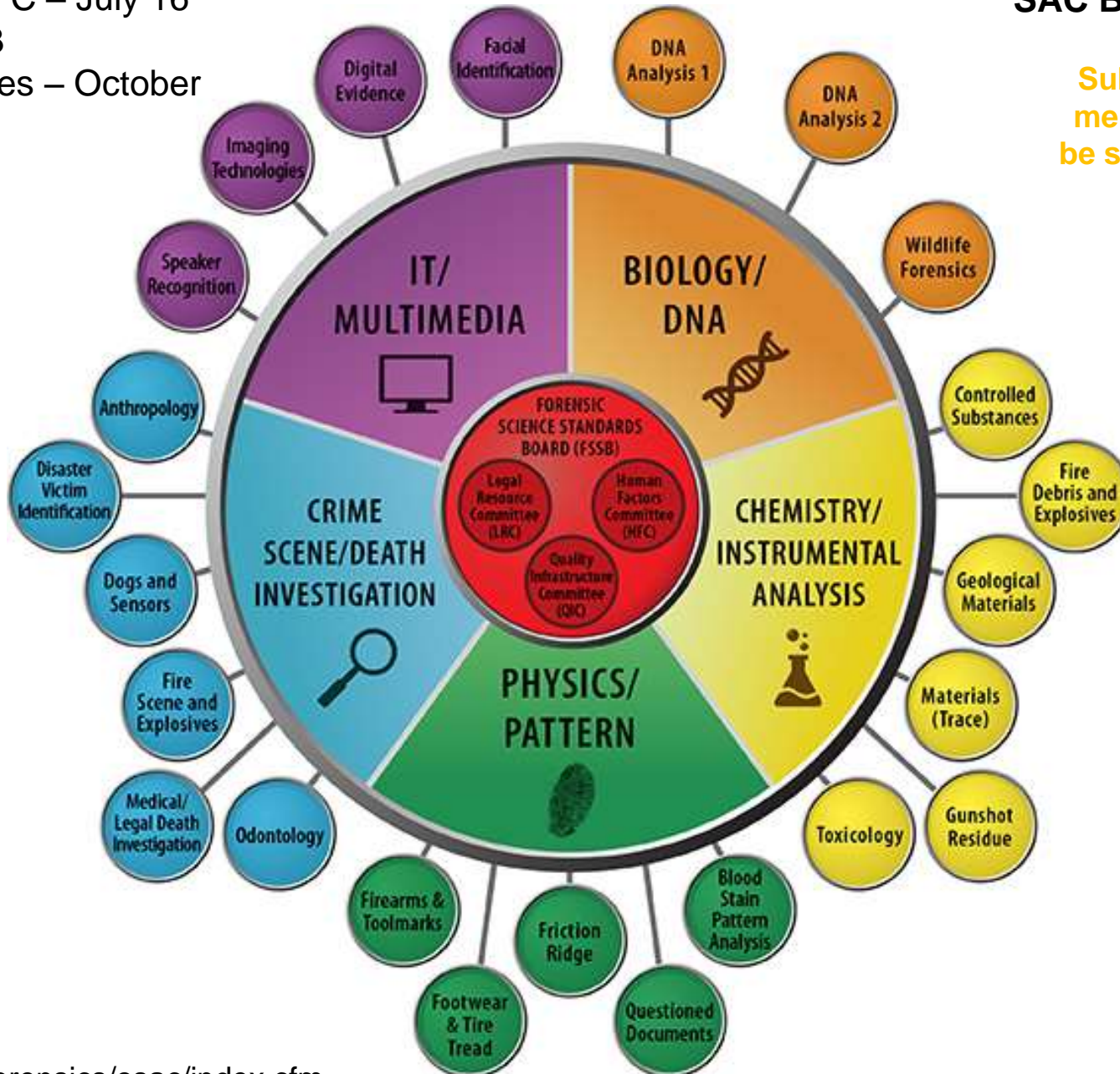
SAC – Sept 3

Subcommittees – October

George Herrin (GBI)

SAC Biology Chair

Subcommittee membership to be selected soon





# Forensic Science Standards Board (FSSB) Named June 26, 2014

<http://www.nist.gov/forensics/osac/fssb.cfm>

The research community representatives are:

**Joseph Francisco, Ph.D.**, William E. Moore distinguished professor, [Purdue University](#); (now [University of Nebraska](#))  
**Anil Jain, Ph.D.**, distinguished professor, Michigan State University;  
**Karen Kafadar, Ph.D.**, Department of Statistics professor and chair, University of Virginia  
**Sarah Kerrigan, Ph.D.**, Forensic Science Department chair, Sam Houston State University; and  
**Douglas Ubelaker, Ph.D.**, curator, Smithsonian Institution, National Museum of Natural History, Division of Physical Anthropology.

Six members were nominated by their professional associations:

**Andrew Baker, M.D.**, National Association of Medical Examiners standards committee chair and Hennepin County Medical Examiner, MN;  
**Laurel Farrell**, Society of Forensic Toxicologists director and past president and American Society of Crime Laboratory Directors/Laboratory Accreditation Board instructor;  
**Steven Johnson**, International Association for Identification first vice president and Ideal Innovations Inc. certified latent print examiner/facial examiner;  
**Mark Keisler**, Association of Firearm and Tool Mark Examiners past president and member-at-large and Indiana State Police Laboratory Forensic Firearms Identification Unit supervisor;  
**Barry Logan, Ph.D.**, American Academy of Forensic Sciences past president and NMS Labs vice president of Forensic Science Initiatives and chief of Forensic Toxicology; and  
**Jeremy Triplett**, American Society of Crime Laboratory Directors advocacy committee chair and Kentucky State Police Forensic Laboratory supervisor.

Five members will chair the OSAC scientific area committees (SAC):

**Richard Vorder Bruegge, Ph.D.** – SAC IT/Multimedia; Federal Bureau of Investigation, senior photographic technologist;  
**Gregory Davis, M.D.** – SAC Crime Scene/Death Investigation; University of Alabama at Birmingham, professor, division director, and chief coroner/medical examiner;  
**George Herrin Jr., Ph.D.** – SAC Biology/DNA; Georgia Bureau of Investigation, Division of Forensic Science deputy director;  
**Austin Hicklin** – SAC Physics/Pattern; Noblis, biometrics and forensic science fellow; and  
**Scott Oulton** – SAC Chemistry/Instrumental Analysis; Drug Enforcement Administration, associate deputy assistant administrator.



# Legal Resource Committee (LRC) Named July 16, 2014

1. **Jennifer Friedman**, Deputy Public Defender, Los Angeles County
2. **Christine Funk**, General Counsel, Department of Forensic Sciences, Washington, D.C. (local government)
3. **Lynn Robitaille Garcia**, General Counsel, Texas Forensic Science Commission (state government)
4. **Ted R. Hunt**, Chief Trial Attorney and DNA Cold Case Project Director, Jackson County Prosecutor's Office, Kansas City, MO
5. **John Kacavas**, United States Attorney, U.S. Department of Justice
6. **David H. Kaye**, Professor, Graduate Faculty, Forensic Science Program, Pennsylvania State University
7. **David A. Moran**, Professor of Law, University of Michigan Law School
8. **Christopher J. Plourd**, Superior Court Judge, State of California
9. **Ronald S. Reinstein**, Judge and Judicial Consultant, Arizona Supreme Court
10. **Barry Scheck**, Professor, Cardozo School of Law, Yeshiva University; Co-Director, Innocence Project; Commissioner, NY Commission on Forensic Science; Neufeld, Scheck, & Brustin, LLC



# Quality Infrastructure Committee (QIC) Named July 16, 2014

1. **Karin Athanas**, Program Manager, American Association For Laboratory Accreditation
2. **Sally S. Aiken**, Medical Examiner, Spokane County, Washington
3. **Barbara E. Andree**, Forensic Chemist, Bureau of Alcohol, Tobacco, Firearms and Explosives
4. **Jason Bond**, Quality Assurance Coordinator, Indiana State Police Laboratory Division
5. **Pamela L. Bordner**, Sr. Accreditation Program Manager, ASCLD/LAB
6. **Kris Cano**, Forensic Laboratory Manager, Scottsdale Police Department Crime Laboratory
7. **Deborah Friedman**, Criminalist III, Broward Sheriff's Office Crime Laboratory
8. **Matthew Gamette**, Laboratory Improvement and Quality Manager, Idaho State Police Forensic Services
9. **Keith Greenaway**, Vice President, ANSI-ASQ National Accreditation Board
10. **Arlene Hall**, Commander, Illinois State Police, Division of Forensic Services
11. **Bruce Houlihan**, Director, Orange County Crime Laboratory/Orange County Sheriff-Coroner
12. **Alice R. Isenberg, Ph.D.**, Section Chief, FBI Laboratory
13. **Timothy Kupferschmid**, Laboratory Director, New York City Office of Chief Medical Examiner
14. **Karen Reczek**, Senior Standards Information Specialist, NIST Standards Coordination Office
15. **Frances E. Schrotter**, Sr. Vice President and Chief Operation Officer, American National Standards Institute



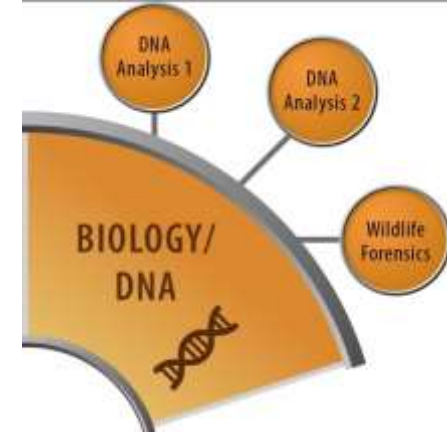
# Human Factors Committee (HFC) Named July 16, 2014

1. **Deborah A. Boehm-Davis, Ph.D.**, Dean of the College of Humanities and Social Sciences, George Mason University
2. **Itiel Dror, Ph.D.**, Principal Researcher, Cognitive Consultants International
3. **Cleotilde Gonzalez, Ph.D.**, Associate Research Professor of Decision Sciences, Carnegie Mellon University
4. **Christian A. Meissner, Ph.D.**, Professor of Psychology, Iowa State University
5. **Erin Morris, Ph.D.**, Behavioral Sciences Research Analyst, Los Angeles County Public Defender
6. **Sunita Sah, Ph.D.**, Assistant Professor, Strategy, Economics, Ethics and Public Policy at Georgetown University McDonough School of Business
7. **Scott Shappell, Ph.D.**, Human Factors and Systems Department Chair, Emory-Riddle Aeronautical University
8. **Dan Simon**, Professor of Law and Psychology, University of Southern California, Gould School of Law, and Department of Psychology
9. **Brian C. Stanton**, cognitive scientist, National Institute of Standards and Technology
10. **William C. Thompson, Ph.D.**, Professor of Criminology, Law, and Society and Psychology and Social Behavior and Law, University of California Irvine



# Scientific Area Committee (SAC) Biology Members

appointed September 3, 2014



**George Herrin, Jr.**, Ph.D., **SAC Chair**,

Georgia Bureau of Investigation-Division of Forensic Sciences

**Kimberly Murga**, Las Vegas Metropolitan Police Department, **Chair of the OSAC DNA Analysis 1 Subcommittee**

**Robyn Ragsdale**, Ph.D., Florida Department of Law Enforcement, **Chair of the OSAC DNA Analysis 2 Subcommittee**

**M. Katherine Moore**, U.S. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, **Chair of the OSAC Wildlife Subcommittee**

**John Butler**, Ph.D., National Institute of Standards and Technology

**Thomas Callaghan**, Ph.D., Federal Bureau of Investigation

**Robin Cotton**, Ph.D., Boston University

**Phillip Danielson**, Ph.D., University of Denver

**Angelo Della Manna**, Alabama Department of Forensic Sciences

**Deedra Hawk**, Wyoming Game and Fish Department Wildlife Forensic and Fish Health Laboratory

**Antonio Possolo**, Ph.D., National Institute of Standards and Technology

**Bruce Weir**, Ph.D., University of Washington

# SAC Subcommittees

<http://www.nist.gov/forensics/osacroles.cfm#SB>

## AUTHORITY

Recommend standards and guidelines for inclusion on the Registries

## MAJOR DUTIES

1. Identify, develop, or coordinate standards and guidelines for SAC and FSSB consideration
2. Coordinate the transition of existing SWG and other documents into approved standards and guidelines
3. Provide a semiannual report to SAC on activities and accomplishments
4. Manage subcommittee task groups to accomplish OSAC objectives

## MEMBERSHIP

x 24 Subs

Up To 20 Members  
total plus up to 5  
invited guests

~ 70% practitioners

~ 20% researchers and scientists

**Plan to have appointed by end of October 2014**

~ 10% R&D  
partners/providers

## Department of Justice

### Policy focused

*Limited Term (FACA)*

Attorney General

Recommendations



National Commission  
on Forensic Science  
(**NCFS**)

## NIST

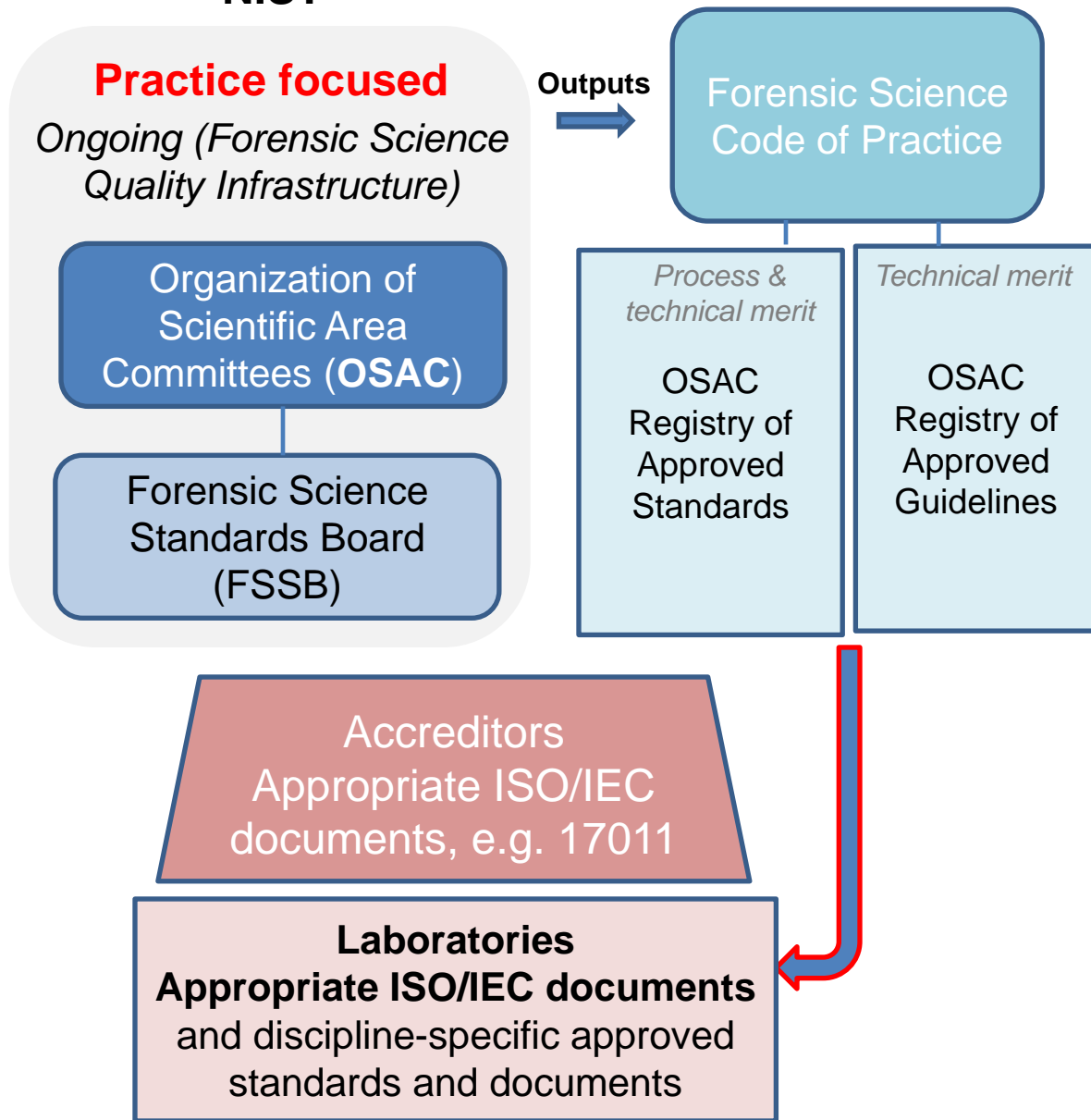
### Practice focused

*Ongoing (Forensic Science  
Quality Infrastructure)*

Organization of  
Scientific Area  
Committees (**OSAC**)


Forensic Science  
Standards Board  
(**FSSB**)

# NIST



# Thoughts on Adoption of New Technologies

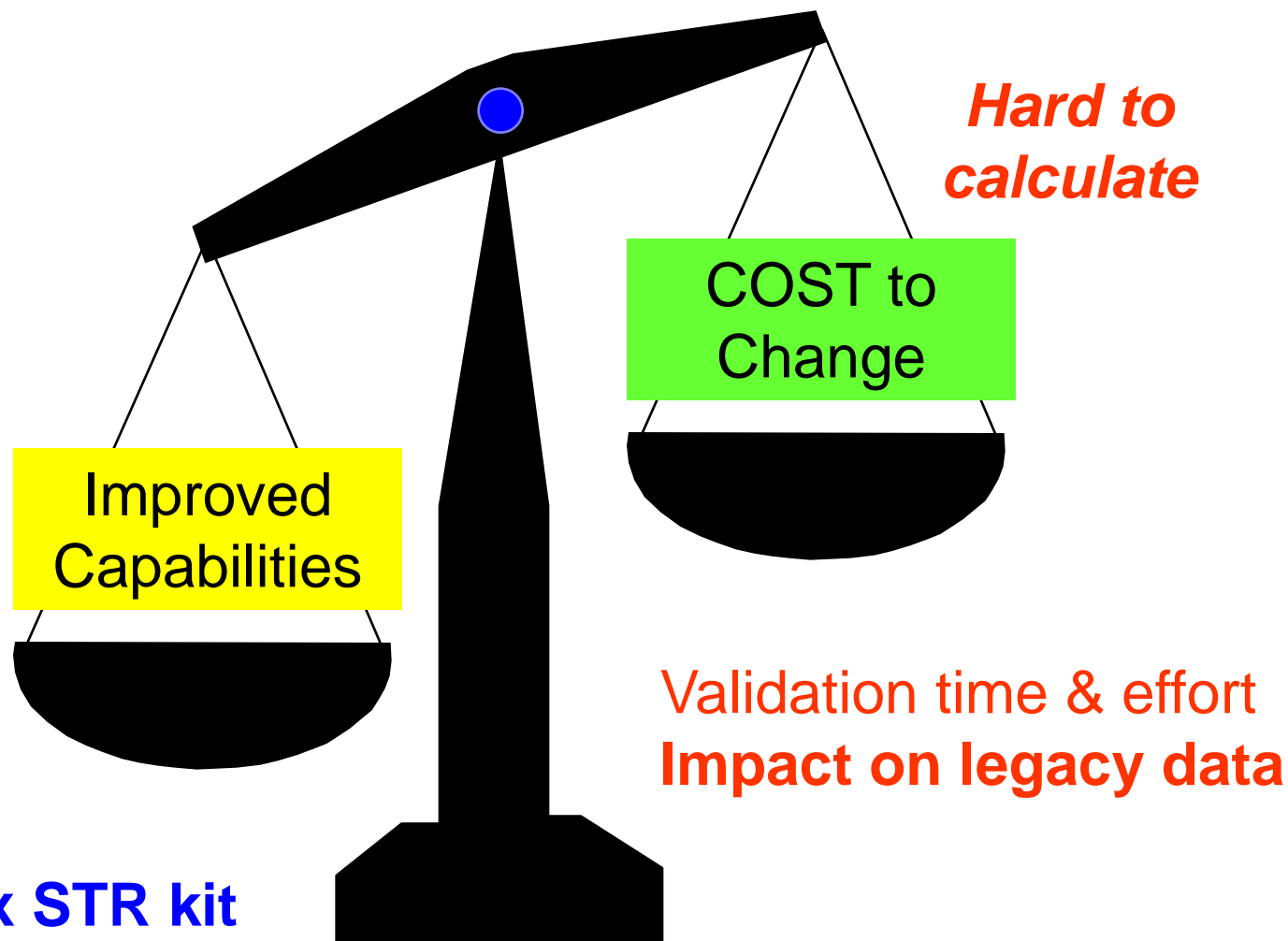
## Stages of Technology for Forensic DNA Typing

- 
- Idea
  - Demonstration of feasibility
  - Research and development
  - Commercialization
  - **Validation by forensic labs**
  - Routine use by the community

**TIME**

**MONEY**

## Decision to Switch/Upgrade to New Technology



**New multiplex STR kit**  
**New detection technology**  
**New DNA markers**

# Thoughts on Technology Adoption

- Just because new technology exists does not mean that people should or will be able to adopt it (e.g., new iPhone 6 announced yesterday); many factors impact decisions besides scientific issues
- **Keep collecting data with NGS** so the community can make data-driven decisions (make the case for why a move to this new technology is beneficial)
- Stable R&D funding is required!
  - NIST Center of Excellence was just announced (\$20M)
  - NSF funding also available in addition to NIJ grants
  - Scientific prizes are being considered as well



# NSF Dear Colleague Letter regarding forensic science proposals



The image is a screenshot of the National Science Foundation (NSF) website. At the top left is the NSF logo with the tagline "WHERE DISCOVERIES BEGIN". To the right is a "QUICK LINKS" button and a search bar. Below the logo is a navigation menu with links for HOME, FUNDING, AWARDS, DISCOVERIES, NEWS, PUBLICATIONS, STATISTICS, ABOUT NSF, and FASTLANE. The main content area is titled "NSF 13-120" and features a large heading: "Dear Colleague Letter: Forensic Science - Opportunity for Breakthroughs in Fundamental and Basic Research and Education". Below the heading is the date "Date: August 12, 2013" and the salutation "Dear Colleagues:". The text states that the NSF is interested in receiving proposals to existing programs in any directorate across the Foundation that address fundamental research questions which might simultaneously advance activities related to research and education in forensic sciences. Supplement requests to existing awards may also be submitted. A section titled "BACKGROUND" follows, mentioning a 2009 report from the National Academy of Sciences titled "Strengthening Forensic Science in the United States: A Path Forward." The report acknowledges the value of forensic science but also notes the need for systematic research to validate underlying assumptions and methodologies. The NSF is highlighted as the only Federal agency whose mission is to support basic research at the forefront of all fields of fundamental science and engineering. A final section titled "DETAILS" explains that the letter is intended to alert basic science and engineering communities, including education researchers, to the NSF's interest in proposals that investigate fundamental questions, pose and test hypotheses, and explore interdisciplinary research. It also mentions that international partnerships, synergistic interactions with forensic and law enforcement agencies, and proposals for workshops are all welcome.

**NSF 13-120**

## Dear Colleague Letter: Forensic Science - Opportunity for Breakthroughs in Fundamental and Basic Research and Education

Date: August 12, 2013

Dear Colleagues:

The National Science Foundation (NSF) is interested in receiving proposals to existing programs in any directorate across the Foundation that address fundamental research questions which might simultaneously advance activities related to research and education in forensic sciences. Supplement requests to existing awards may also be submitted.

### BACKGROUND

In 2009 the National Academy of Sciences published "[Strengthening Forensic Science in the United States: A Path Forward](#)." While the report acknowledges that "the forensic science disciplines have produced valuable evidence that has contributed to the successful prosecution and conviction of criminals as well as to the exoneration of innocent people," it cites a need for systematic research to validate the various disciplines' underlying assumptions and methodologies, adding that the "forensic science ... communities will be improved by opportunities to collaborate with the broader science and engineering communities." NSF is the only Federal agency whose mission is to support basic research at the forefront of all fields of fundamental science and engineering. It is therefore appropriate for the Foundation to support *basic* research that can inform research and education in forensic science.

### DETAILS

This Dear Colleague Letter is to alert all basic science and engineering communities, including education researchers, to the Foundation's interest in receiving proposals that, while investigating fundamental questions, seek to pose and test hypotheses that could inform research in forensic sciences. The interest spans both disciplinary and interdisciplinary research. Additionally, the wide public interest in forensics can provide an effective vehicle for basic research in science education. International partnerships, where appropriate, are encouraged, as are synergistic interactions with forensic and/or law enforcement agencies and organizations. Proposals for workshops to explore fundamental science drivers and their relevance to forensics are also welcome. Proposers may review reports of recent workshops that exemplify collaborative approaches:

<http://www.nsf.gov/pubs/2013/nsf13120/nsf13120.jsp>

# NSF Industry/University Research Centers



**National Science Foundation**  
4201 Wilson Boulevard  
Arlington, Virginia 22230



**NSF 14-066**

## **Dear Colleague Letter - I/UCRCs in Areas Relevant to the Forensic Sciences**

May 7, 2014

Dear Colleagues,

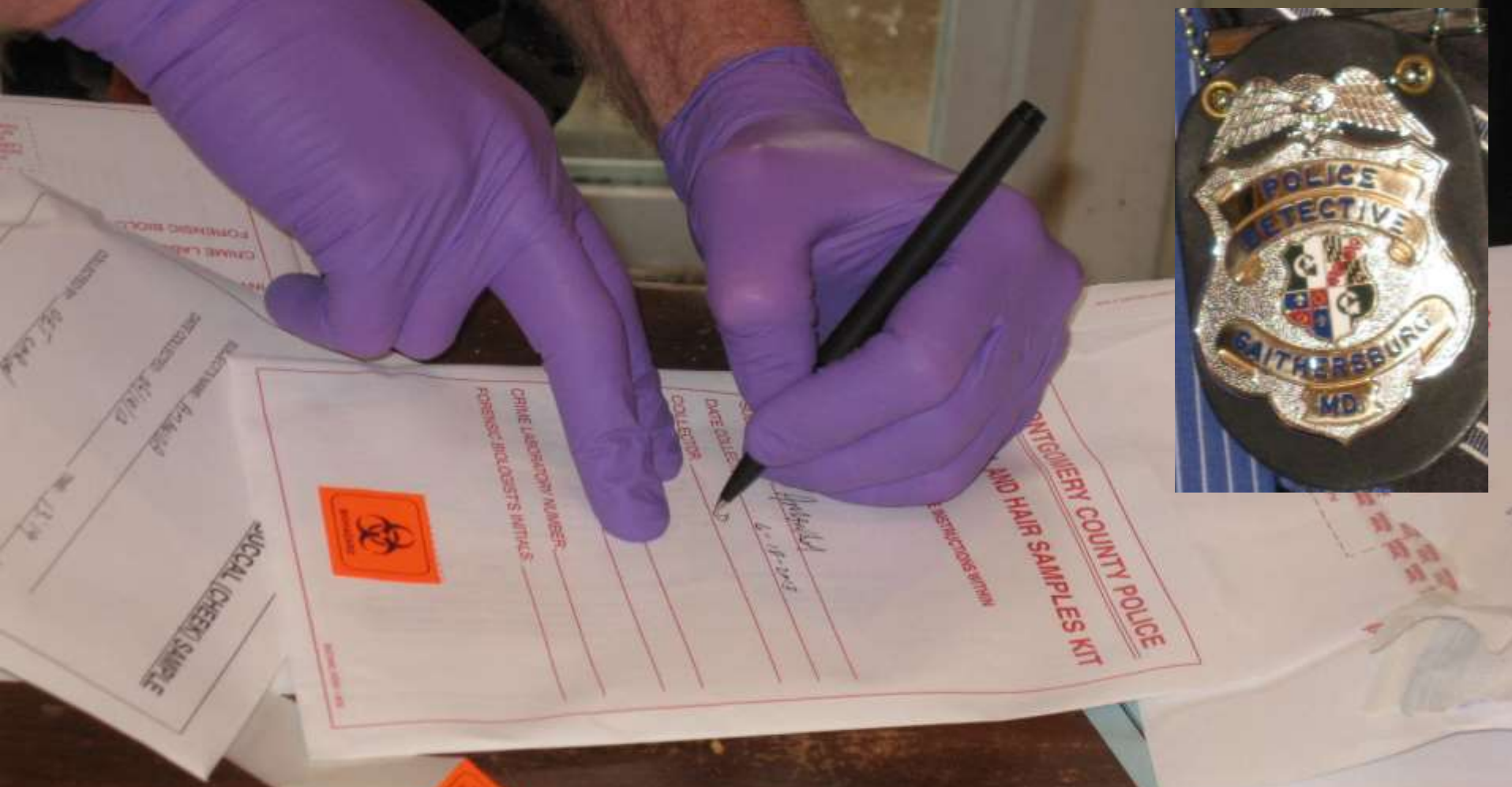
The National Science Foundation (NSF) and the National Institute of Justice (NIJ) have partnered as co-sponsors to welcome proposals for establishment of Industry/University Cooperative Research Centers (I/UCRCs; see NSF 13-594; [http://www.nsf.gov/publications/pub\\_summ.jsp?org=ENG&ods\\_key=nsf13594](http://www.nsf.gov/publications/pub_summ.jsp?org=ENG&ods_key=nsf13594)) in areas relevant to the forensic sciences. With permission from the Principal Investigator (PI), NIJ will share in evaluation of forensics-related I/UCRC proposals, and may co-sponsor successful proposals.

<http://www.nsf.gov/pubs/2014/nsf14066/nsf14066.pdf>

# Save the Date for Future Meetings

- **NIST Forensic Science Center of Excellence**
  - Proposals due December 11, 2014
  - Webinar to answer questions Sept 25, 1-3pm Eastern
- **Forensics@NIST** (Gaithersburg, MD):  
**December 3-4, 2014**
- **International Symposium** on Forensic Measurement Issues and Error (Washington, DC):  
**July 20-24, 2015** *is being planned*

My kitchen table (June 2013) following a home invasion and burglary



**Appropriate sample collection is crucial – new technologies will not solve every problem!**

**National Commission on Forensic Science (NCFS):**  
[www.justice.gov/ncfs](http://www.justice.gov/ncfs)

**Organization of Scientific Area Committees (OSAC):**  
[www.nist.gov/forensics/osac/index.cfm](http://www.nist.gov/forensics/osac/index.cfm)



[www.nist.gov/forensics](http://www.nist.gov/forensics)

301-975-4049

john.butler@nist.gov