

PROGRAM

American Academy of Forensic Sciences

75th Anniversary Conference



Science Works

February 13-18, 2023
Orlando, Florida
Rosen Shingle Creek Hotel & Convention Center

GENERAL INFORMATION

Registration Desk Hours

Sunday	February 12	1:00 PM	-	5:00 PM
Monday	February 13	6:45 AM	-	5:00 PM
Tuesday	February 14	6:45 AM	-	6:00 PM
Wednesday	February 15	6:45 AM	-	5:00 PM
Thursday	February 16	6:45 AM	-	5:00 PM
Friday	February 17	6:45 AM	-	4:00 PM
Saturday	February 18	7:30 AM	-	11:00 AM

Exhibit Hall Hours

Wednesday	February 15	11:30 AM	-	4:00 PM
Thursday	February 16	9:00 AM	-	2:00 PM
AAFS Reception	(Exhibits Open)	6:00 PM	-	8:00 PM
Friday	February 17	8:00 AM	-	2:00 PM

Media Statement: The American Academy of Forensic Sciences (AAFS) does not comment on forensic cases or medicolegal investigations. Media releases will be issued by the AAFS Board of Directors only in response to matters deemed pertinent to the business of the Academy. The sitting AAFS President is the only member of the Academy authorized to provide comment on behalf of the Academy. Comments, views, and opinions expressed by all other members of the Academy reflect the comments, views, and opinions of the individual solely.

Registrant Minimum Age: Registrants and presenters at the AAFS Annual Conference must be at least 18 years old at the time of the conference.

Lost Badge Policy: Lost, misplaced, stolen, or forgotten badges will incur a replacement fee equal to the original purchase amount of your registration. If your badge was complimentary, the fee will be the current, on-site rate.

Author Information: The *Journal of Forensic Sciences* encourages authors to submit previously unpublished reports and papers presented at the AAFS annual conference. For full instructions on manuscript preparation, consult the Information for Authors available at: <https://www.aafs.org/resources/journal-of-forensic-sciences/information-for-authors/>.

Manuscripts must be submitted electronically via the *Journal of Forensic Sciences* Manuscript Central site: <http://mc.manuscriptcentral.com/jofs>. For questions, please contact: jfs.editor@att.net.

Reminders:

- Video and/or audio recording of any session(s) or parts thereof is not permitted without prior approval from the American Academy of Forensic Sciences.
- English is the official language of the AAFS and its meetings; neither oral nor written translations will be provided.
- Although precautions are taken to prevent schedule changes, speakers and program schedules may change due to unforeseen circumstances.
- As a courtesy to others, please silence your cell phone when attending the sessions.

Future AAFS Annual Conferences

2024 AAFS Annual Conference

February 19-24, 2024
Denver Convention Center
Denver, CO

2025 AAFS Annual Conference

February 17-22, 2025
Baltimore Convention Center
Baltimore, MD

2026 AAFS Annual Conference

February 9-14, 2026
Ernest N. Morial Convention Center
New Orleans, LA

AWARDS

Distinguished Fellow

Julie A. Howe, MBA

Humanitarian and Human Rights Resource Center's Clyde Snow Award

The Forensic Unit of the International Committee of the Red Cross (ICRC)

FSF Emerging Forensic Scientist Award

Helen M. Brandt-Litavec, MS

Ya-Chih Cheng, MS

Jasmine Maxwell, MSFS

FSF Warren-Young Scholarship

Paula E. Slamowitz, PhD

FSF Jan S. Bashinski Criminalistics Graduate Thesis Assistance Grant

Tori L. Schaffer, BS

AWARDS

The Section Awards will be presented during Section Business Meetings on Wednesday, February 15.

2022 Section Award Honorees

Anthropology Section's

Ellis R. Kerley Research Award
Outstanding Mentorship Award

Yangseung Jeong, PhD
Peer Moore-Jansen, PhD

Criminalistics Section's

Paul L. Kirk Award
Mary E. Cowan Outstanding Service Award
Meritorious Service Award

Pierre Margot, PhD
Michael Coble, PhD
Marilyn Miller, EdD

Digital & Multimedia Sciences Section's

Outstanding Case Study Award
Outstanding Student Research Award

Joseph Levi White, PhD
Austin Cauley, BS

Engineering & Applied Sciences Section's

Steven Charles Batterman Award

Steven Charles Batterman, PhD
Laura Liptai, PhD

Forensic Nursing Science Section's

Forensic Nurse Scientist Award
Forensic Nurse Innovator Award

Julie Valentine, PhD
Patricia Speck, DNSc

General Section's

Paul W. Kehres Meritorious Service Award
John R. Hunt Award

Gina Londino-Smolar, MS
Katherine Brown, PhD

Odontology Section's

Reidar F. Sognnaes Award
Lester Luntz Odontology Award

Charles Michael Bowers, DDS
Paula Brumit, DDS

Pathology/Biology Section's

Milton Helpert Award
Best Resident Paper Award
Award for Achievement in the Forensic Life Sciences

Joyce deJong, DO
Charles Rohrer, MD
Jeff Wells, PhD

Questioned Documents Section's

Maureen Casey-Owens Award

Larry Olson, MFS

Toxicology Section's

Irving Sunshine Award
Rolla N. Harger Award
June K. Jones Scholarship Award
Annual Lectureship in Toxicology

Rebecca Hartman, PhD
Marc LeBeau, PhD
Alaina Holt
Karen McDonald, MPPAL, PMP

BUSINESS MEETINGS

Attend Your Section's Annual Business Meeting for a Chance to Win a Complimentary Meeting Registration!

Do not miss the opportunity to win a complimentary meeting registration for the 2024 AAFS Annual Scientific Conference in Denver, CO! Each section will award one registration to a voting member who attends their Section Business Meeting.

Wednesday, February 15

1:00 PM	-	3:45 PM	Criminalistics
1:30 PM	-	3:45 PM	Forensic Nursing Science
1:30 PM	-	3:45 PM	Pathology/Biology
2:00 PM	-	3:45 PM	Anthropology
2:00 PM	-	3:45 PM	Digital & Multimedia Sciences
2:00 PM	-	3:45 PM	Engineering & Applied Sciences
2:00 PM	-	3:45 PM	General
2:00 PM	-	3:45 PM	Jurisprudence
2:00 PM	-	3:45 PM	Odontology
2:00 PM	-	3:45 PM	Psychiatry & Behavioral Science
2:00 PM	-	3:45 PM	Questioned Documents
2:00 PM	-	3:45 PM	Toxicology

Attend the AAFS Annual Business Meeting for a Chance to Win a Complimentary Meeting Registration!

The Annual Business Meeting of the Fellows and Members of the AAFS will be held on Wednesday, February 15, at 4:15 PM. It is essential that all Fellows and Members attend this very important meeting in order to reach a quorum for the voting process. Agenda items include the election of 2023-24 Officers, consideration of bylaw amendments, a summary of AAFS activities during the past year, and plans for the future.

As an incentive to attend, all Fellows and Members present will automatically be entered in a drawing for a complimentary meeting registration to attend the 2024 AAFS Annual Scientific Conference in Denver, CO.

STUDENT ACADEMY

Open to all Meeting Registrants (\$25/Person)

Tuesday, February 14, 2023

9:00 AM - 1:00 PM

The purpose of the Student Academy of Forensic Sciences is to bring to the attention of high school students the vital importance of the application of scientific principles to the administration of justice. It acquaints the participants with the role of the forensic science disciplines in the legal system as well as the education and training required for the career in each discipline.

Chair:

Marilyn T. Miller, EdD

Virginia Commonwealth University
Richmond, VA

Co-Chair:

Lynn A. Schneeweis, MS

Massachusetts State Police Crime Laboratory
Maynard, MA

Faculty:

Anthropology

Ginesse A. Listi, PhD

Louisiana State University
Baton Rouge, LA

Odontology:

Lillian A. Nawrocki, DDS

Office of the Medical Examiner
Suffolk County, NY

Criminalistics:

Kelly Knight, MS

George Mason University
Fairfax, VA

Pathology/Biology:

J.C.U. Downs, MD

forensiX, LLC
Savannah, GA

Digital & Multimedia Sciences:

Douglas Lacey, BS, MS

BEK TEK LLC
Stafford, VA

Psychiatry & Behavioral Science:

Emily D. Gottfried, PhD

Medical University of SC
Charleston, SC

Engineering & Applied Sciences:

Roy Crawford, BSME

R.R. Crawford Engineering
Whitesburg, KY

Questioned Documents:

Kelsey Osborn, BS

Osborn & Son
Middlesex, NJ

General:

Brian S. Clark, MFS

Federal Bureau of Investigation
Chicago, IL

Toxicology:

George F. Jackson, PhD

NJ Office of the Chief State Medical Examiner
Burlington Township, NJ

T.L. Williams, MFS

U.S. Army Criminal Investigation Command
Quantico, VA

Ashraf Mozayani, PhD

Texas Southern University
Houston, TX

Jurisprudence:

Pamela A.W. King, JD

Minnesota State Public Defender Office
Rochester, MN

STUDENT ACADEMY

Program:

9:00 AM - 9:10 AM	Introduction <i>Marilyn T. Miller, EdD, Chair</i>
9:10 AM - 9:20 AM	Welcome <i>Laura C. Fulginiti, PhD</i>
9:20 AM - 9:30 AM	"The Case" <i>Lynn A. Schneeweis, MS, Co-Chair</i>

The Forensic Sciences Group I Disciplines

9:30 AM - 9:45 AM	Pathology/Biology <i>J.C.U. Downs, MD</i>
9:45 AM - 10:00 AM	Anthropology <i>Ginesse A. Listi, PhD</i>
10:00 AM - 10:15 AM	Odontology <i>Lilliiian A. Nawrocki, DDS</i>
10:15 AM - 10:30 AM	Toxicology <i>George Jackson, PhD; Ashraf Mozayani, PhD</i>
10:30 AM - 10:45 AM	Digital & Multimedia Sciences <i>Douglas Lacey, BS, MS</i>
10:45 AM - 11:00 AM	Q&A, Assignment, and Break

The Forensic Sciences Group II Disciplines

11:00 AM - 11:15 AM	General <i>Brian S. Clark, MFS; T.L. Williams, MFS</i>
11:15 AM - 11:30 AM	Criminalistics <i>Kelly Knight, MS</i>
11:30 AM - 11:45 AM	Questioned Documents <i>Kelsey Osborn, BS</i>
11:45 AM - 12:00 PM	Engineering & Applied Sciences <i>Roy Crawford, BSME</i>
12:00 PM - 12:15 PM	Psychiatry & Behavioral Science <i>Emily D. Gottfried, PhD</i>
12:15 PM - 1:30 PM	Lunch & Student Trivia
1:30 PM - 1:45 PM	Case Conclusion <i>Pamela A.W. King, JD</i>
1:45 PM - 2:00 PM	Wrap-Up

FEPAC SESSION

Accreditation of Forensic Science Academic Programs Through the AAFS Forensic Science Education Programs Commission (FEPAC)

Tuesday, February 14, 2023

Pre-Registration Not Required—Open to All Meeting Attendees

8:30 AM – 12:45 PM

Chair:

Heidi Eldridge, PhD

The George Washington University
Washington, DC

Commissioner:

Josh Brunty, MS

Marshall University
Huntington, WV

Commissioner:

Sarah Seashols Williams

Virginia Commonwealth University
Richmond, VA

Commissioner:

Thomas Brettell, PhD

Cedar Crest College
Allentown, PA

Commissioner:

A. Karl Larsen, PhD

University of Illinois, Chicago
Chicago, IL

Commissioner:

Jason L. Schroeder, MS

Harris County Institute of Forensic Science
Houston, TX

Learning Overview: Upon completion of this session, the participant should be able to understand the process of accreditation through the AAFS FEPAC mechanism and be able to participate in the process as a reviewer of academic programs. Participants from academic programs will also learn about the process of accreditation from different perspectives.

Program Description: This session has been developed to assist academic institutions offering undergraduate and graduate degree programs in forensic science and forensic digital evidence to prepare for the accreditation process through the FEPAC. This session will also assist future on-site evaluators (academic and practitioners) to prepare for on-site evaluations of academic programs. Successful completion of this one-day session will qualify participants for consideration to serve as on-site evaluators for FEPAC in the future (please note that participants must still meet other FEPAC requirements, such as membership in the AAFS and designation as either a practitioner or academician). This training session will highlight updates to the FEPAC Standards for Accreditation and provide valuable information for both program directors and on-site evaluators.

The FEPAC is a standing committee of the AAFS with a membership that includes five educators, five forensic science practitioners, and a public member as voting members. The mission of the FEPAC is to maintain and enhance the quality of forensic science education through a formal evaluation and recognition of college-level academic programs. The primary function of the committee is to develop and maintain standards and to administer an accreditation program that recognizes and distinguishes high-quality undergraduate and graduate forensic science programs. Forty academic programs have successfully completed the accreditation process since 2003. Additional information on FEPAC can be found on the FEPAC website: www.aafs.org/FEPAC.

Program:

8:30 AM - 9:00 AM	Introduction and Welcoming Remarks/Module 1: What to Know About FEPAC <i>Heidi Eldridge, PhD</i>
9:00 AM - 9:30 AM	Module 2: An Overview of the FEPAC Application Process <i>Thomas Brettell, PhD</i>
9:30 AM - 10:00 AM	Module 3: A Review of Self-Study Standards 3.0—General for All Programs <i>Sarah Seashols Williams, PhD</i>
10:00 AM - 10:15 AM	Break
10:15 AM - 10:45 AM	Module 4: A Review of Self-Study Standards 4.0—Undergraduate Programs <i>Josh Brunty, MS</i>
10:45 AM - 11:15 AM	Module 5: A Review of Self-Study Standards 5.0—Graduate Programs <i>A. Karl Larsen, PhD</i>
11:15 AM - 11:45 AM	Module 6: Accreditation Decisions and Categories, Appeals Process, Annual Reports, Substantive Changes, and Post-Visit Survey <i>Heidi Eldridge, PhD</i>
11:45 AM - 12:15 PM	Module 7: FEPAC On-Site Evaluator Training <i>Jason L. Schroeder, MS</i>
12:15 PM - 12:45 PM	Questions and Answers <i>FEPAC Commissioners and Accreditation Coordinator</i>

YOUNG FORENSIC SCIENTISTS FORUM

Open to All Meeting Registrants—Pre-Registration Encouraged

S1 Education, Training, and Experiences: The Ingredients to Make Science Work!

Tuesday, February 14, 2023

8:00 AM – 5:00 PM

CE Hours: 6.75

Chair:

Zain Bhaloo, MSc

Canada Border Services Agency
Ottawa, ON CANADA

Committee Member:

Emily Rue, PhD

Iowa Department of Public Safety
Ankeny, IA

Laura C. Fulginiti, PhD

AAFS President
Phoenix, AZ

Brooke W. Kamrath, PhD

University of New Haven
West Haven, CT

Donald E. Shelton, PhD

University of Michigan-Dearborn
Saline, MI

Brandon L. Garrett, JD

Wilson Center for Science and Justice
Durham, NC

Barry K. Logan, PhD

CFSRE
Willow Grove, PA

Dirk M. Vastrick, BA

Dirk Vastrick Presents
Spokane Valley, WA

Denise Gemmellaro, PhD

Kean University
Union, NJ

Elaine M. Pagliaro, JD

Henry C. Lee Institute of Forensic Science
West Haven, CT

C. Ken Williams, MSc, JD

New Jersey State Police
Hamilton, NJ

Cheryl Hunter

AAFS Membership Coordinator
Colorado Springs, CO

Carrie Polston, PhD

Universite de Lausanne
Lausanne, Vaud, SWITZERLAND

Erin Worrell, BSc

Denver Office of the Medical Examiner
Denver, CO

Gregory E. Laskowski, MPA

Criminalistics Services International
Bakersfield, CA

Dayla Rich, PhD

Federal Bureau of Investigation
Huntsville, AL

Charlotte Word, PhD

Forensic Science Expert
Richmond, VA

Henry C. Lee, PhD

Henry C. Lee Institute of Forensic Science
West Haven, CT

Corey W. Scott, MSFS

Federal Bureau of Investigation
Redstone Arsenal, AL

Paul Yount, MSFS

Phoenix Police Department
Crime Laboratory
Phoenix, AZ

Learning Overview: The Young Forensic Scientist Forum (YFSF) provides students and young professionals with less than five years of experience an opportunity to network, collaborate and learn from fellow peers and experts in the field. This session will prepare attendees for a successful career in their discipline of choice and allow them to look from the outside-in as they evaluate themselves and their future impact on forensic science. Our mission is to provide education, mentorship, and resources to students and burgeoning forensic scientists to promote interest and longevity in the field and encourage participation and advancement in the AAFS.

Impact Statement: After attending this session, attendees will better understand how forensic science has evolved over the years and how every forensic science discipline impacts and enhances the field regardless of one's experience and background. In addition, attendees will learn the importance of education, extensive training, and innovative scientific research. Finally, attendees will learn about the "science" behind job interviewing and become adept in resume building in the forensic sciences.

Program Description:

This year the American Academy of Forensic Sciences (AAFS) is celebrating 75 years of global engagement. The overall theme of the conference is Science Works. In the past few years, science and the scientific method have been under attack, denigrated, and dismissed. AAFS President Laura Fulginiti's plan is to offer scientific content demonstrating that forensic science provides trustworthy, objective data that can be relied upon by the judicial system, Congress, and the public. Our Special Session theme, *Education*,

YOUNG FORENSIC SCIENTISTS FORUM

S1 Education, Training, and Experiences: The Ingredients to Make Science Work!

Program Description cont.:

Training, and Experiences: The Ingredients to Make Science Work!, was chosen to invigorate young forensic scientists and demonstrate how education and training play a vital role in making forensic science work. This full-day session will show young forensic scientists that their contribution matters and that the decisions they make today can have a positive impact on the scientific community at large.

This year the YFSF is excited to present an outstanding group of speakers. These distinguished presenters have been carefully selected to provide exceptional mentorship to attendees through topics such as how to stay true to science, present results in a scientifically correct and neutral manner, manage high-profile cases, and interact with prosecutors and defense attorneys. The session will also include thoughtful demonstrations on assessing one's professional goals, establishing what success looks like for a young forensic scientist, and thinking about one's responsibilities as a mentor and leader as they advance into a career.

The YFSF Special Session provides an inclusive atmosphere for young forensic scientists to have the opportunity for professional growth/development and scientific engagement with esteemed colleagues. Through these presentations, attendees will hear from experienced practitioners as they discuss their extensive education, training, and experiences that have led to success in their field of study. These presentations include case-driven research, innovative methodology, scientific studies, and personal stories. Additionally, each presenter will include thoughtful discussions on their struggles and setbacks that have ultimately made "science work." Through this session, the YFSF aims to integrate young professionals into the field as they begin their journey into forensic science. The YFSF offers two additional opportunities for young professionals and students: the Bring Your Own Posters (BYOP) Session and the Bring Your Own Slides (BYOS) Session. We are excited to announce that this year we have collaborated with The Center for Forensic Science Research and Education (CFSRE) to honor and award two outstanding scientists for their contributions to forensic science. Finally, the session will end with a resume review workshop, so do not forget to update your resume and bring several printed copies with you to the session!

Program:

8:00 AM - 8:20 AM	Introduction to the YFSF <i>Zain Bhaloo, MSc</i>
8:20 AM - 8:40 AM	Membership in AAFS <i>Cheryl Hunter</i>
8:40 AM - 9:00 AM	Stand Up for Science <i>Laura Fulginiti, PhD</i>
9:00 AM - 9:20 AM	When You Wish Upon a Star <i>C. Ken Williams, MSc, JD</i>
9:20 AM - 9:40 AM	Lessons Learned During the Evolution of Forensic DNA Testing <i>Charlotte Word, PhD</i>
9:40 AM - 10:00 AM	From Farmboy to Forensic Scientist <i>Paul Yount, MSFS</i>
10:00 AM - 10:15 AM	Break
10:15 AM - 10:35 AM	Professional Growth: Stages in the Arc of Your Career in Forensic Science <i>Barry K. Logan, PhD</i>
10:35 AM - 10:55 AM	Four-Plus Decades in Forensic Science: Adapting to a Changing Environment <i>Gregory E. Laskowski, MPA</i>
10:55 AM - 11:15 AM	Forensic Science and Legal Education <i>Brandon L. Garrett, JD</i>
11:15 AM - 11:35 AM	Forensic Science Experts—What the Judge and Jury Expect <i>Donald E. Shelton, PhD</i>

YOUNG FORENSIC SCIENTISTS FORUM

S1 Education, Training, and Experiences: The Ingredients to Make Science Work!

Program cont.:

11:35 AM - 11:55 AM	Recovering Scientific Credibility in the Courtroom: The Effects of Less-Than-Expert Testimony and How to Mitigate Effects in a Particular Case or Future Testimony <i>Elaine M. Pagliaro, JD</i>
11:55 AM - 1:00 PM	BREAK
1:00 PM - 1:40 PM	"The Past, Present, and Future" of Forensic Science and Forensic Education <i>Henry C. Lee, PhD</i>
1:40 PM - 2:00 PM	Complications of Additive Manufacturing in Forensic Science <i>Corey W. Scott, MSFS</i>
2:00 PM - 2:20 PM	Traces for Reconstruction and Investigation Leads <i>Brooke W. Kammrath, PhD</i>
2:20 PM - 2:40 PM	Using Forensic Entomology to Promote Multidisciplinary Involvement and Collaboration in the Forensic Sciences <i>Denise Gemmellaro, PhD</i>
2:40 PM - 2:55 PM	BREAK
2:55 PM - 3:15 PM	Redefining Failure: The "Ingredient" in Scientific Success That You Never See <i>Carrie Polston, PhD</i>
3:15 PM - 3:35 PM	So You Want to be a Medicolegal Death Investigator <i>Erin Worrell, BSc</i>
3:35 PM - 3:55 PM	Starting Off With a Bang!: My Experience in Becoming an Explosives Chemist <i>Dayla Rich, PhD</i>
3:55 PM - 4:15 PM	The Science of Going to Work Faster and Better: Improve Your Results Tomorrow <i>Dirk M. Vastrick, BA</i>
4:15 PM - 4:55 PM	Resume Review Workshop <i>Dirk M. Vastrick, BA</i>
4:55 PM - 5:00 PM	Closing of the YFSF Special Session <i>Emily Rue, PhD</i>

HHRRC SYMPOSIUM

Open to All Meeting Registrants—Pre-Registration Encouraged

S2 HHRRC Symposium: The Contemporary Global Scope of Forensic Human Rights Investigations and a New AAFS Initiative

Tuesday, February 14, 2023

8:00 AM – 12:00 PM

Chair:

Dawnie W. Steadman, PhD
University of Tennessee
Knoxville, TX

Presenter:

Luis Fondebrider, BA
International Committee of the Red Cross
Buenos Aires, ARGENTINA

Learning Overview: After attending this presentation, attendees will have a greater understanding of the role of and need for forensic science in human rights investigations as well as learn of new initiatives to involve AAFS members in such projects.

Impact Statement: This presentation will impact the forensic science community by: (1) highlighting some of the current forensic science human rights investigate efforts, and (2) providing direct access to some of the organizations and individuals currently involved in human rights investigations globally.

Program Description: The purpose of this half-day international symposium is to provide an overview of contemporary forensic science applications to human rights investigations by some of the individuals and organizations responsible for the forensic responses, including the Equipo Argentino de Antropología Forense, International Criminal Court, and the International Committee for the Red Cross. There will also be a discussion of the challenges of forensic work in these international contexts, beyond the scientific challenges. Current international protocols and standards in forensic human rights investigations will also be presented. In addition, the HHRRC will introduce a new initiative to create a database of AAFS members who wish to be involved in humanitarian and human rights investigations that will serve as a subject matter expert resource for international organizations seeking forensic experts. The second portion of the symposium will consist of a panel of the presenters who will answer questions from the attendees.

NIST-AAFS SPECIAL SESSION

Open to All Meeting Registrants—Pre-Registration Encouraged

S3 Implementation of Standards: OSAC Registry Checklists

Tuesday, February 14, 2023

8:00 AM – 12:00 PM

CE Hours: 3.5

Chair:

Sarah Kerrigan, PhD
Sam Houston State University
Huntsville, TX

Co-Chair:

Laurel Farrell, BA
ANSI National Accreditation Board
Firestone, CO

Faculty:

Jason Bundy
Florida Department of Law Enforcement
Tallahassee, FL

Pamela Sale, BS
ANSI National Accreditation Board
Washington, DC

Allison Getz, BS
NIST
Gaithersburg, MD

Erika Ziemak, MSFS
Houston Forensic Science Center
Houston, TX

Lori Nix, BS
Georgia Bureau of Investigation
Decatur, GA

Learning Overview: After attending this presentation, attendees will have gained insight regarding tools, training, and resources to support the implementation of standards on the Organization of Scientific Area Committees (OSAC) Registry. Specifically, attendees will understand how to access and use checklists to document objective evidence of conformance and how to use these checklists within their own organizations for gap analysis or for internal auditing purposes.

Impact Statement: Forensic science service providers will benefit from additional resources that are available to facilitate OSAC Registry implementation efforts (i.e., checklists) as part of the National Institute of Standards and Technology-American Academy of Forensic Sciences (NIST-AAFS) Collaborative Agreement.

Program Description: In this interdisciplinary symposium, checklists to document objective evidence of conformance, progress toward implementation, and auditing use will be explained. Insights regarding checklist development, beta-testing, delivery, and versioning will be presented. Collaborations with quality management personnel will be explored, and the practical use of checklists within a forensic service provider will be discussed.

During this interdisciplinary symposium, the benefits of checklist use will be presented. Free access to this resource will be provided, and the practical use of these flexible tools will be explained from the perspective of the developers, providers, and other stakeholders. This special session will include instructions regarding the use of checklists for standards on the OSAC Registry, integration in the quality management system, and practical advice regarding their use. This session will also include an interactive session and panel discussion to provide feedback, ask questions, and gain insight from FSPs that are using the checklists.

NIST-AAFS SPECIAL SESSION

S3 Implementation of Standards: OSAC Registry Checklists

Program:

8:00 AM – 8:15 AM	Introduction <i>Sarah Kerrigan, PhD</i>
8:15 AM – 8:35 AM	The Role of NIST in Consensus-Based Standards <i>Allison Getz, BS</i>
8:35 AM – 8:50 AM	Overview of the NIST-AAFS Checklist Initiative <i>Laurel Farrell, BA</i>
8:50 AM – 9:50 AM	Demonstration and Use of the Checklist <i>Erika Ziemak, MSFS</i>
9:50 AM – 10:00 AM	Interactive Quiz <i>Sarah Kerrigan, PhD</i>
10:00 AM – 10:20 AM	BREAK
10:20 AM – 10:35 AM	Role of AFQAM and QM Perspective <i>Lori Nix, BS</i>
10:35 AM – 11:15 AM	Practical Implementation of Checklists in an Operational Setting <i>Erika Ziemak, MSFS; Jason Bundy; Pamela Sale, BS</i>
11:15 AM – 12:00 PM	Panel Discussion <i>Sarah Kerrigan, PhD; Allison Getz, BS; Laurel Farrell, BA; Erika Ziemak, MSFS; Lori Nix, BS; Jason Bundy; Pamela Sale, BS</i>

INTERDISCIPLINARY SYMPOSIUM

Pre-Registration Required—\$75

S4 The Formation of the American Academy of Forensic Sciences

Tuesday, February 14, 2023

1:15 PM – 5:15 PM

3.5 CE Hours

Chair:

Paul Messner, JD
Dry Ridge, KY

Co-Chair:

Jessica Volz, DNP
Adventist HealthCare Shady Grove Medical Center
Brunswick, MD

Faculty:

G. David Annas, MD
Forensic Psychiatry Consulting, LLC
Syracuse, NY

Carl R. McClary, MS
Bureau of Alcohol, Tobacco, and Firearms
Atlanta, GA

Barry A.J. Fisher, MS, MBA
Indio, CA

Kenneth E. Melson, JD
The George Washington University Law School
Washington, DC

Corina Freitas, MD
Freitas and Associates
Alexandria, VA

Christopher Milroy, MD
Eastern Ontario Regional Forensic Pathology Unit
Ottawa, ON CANADA

George W. Hime, MS
Miami-Dade Medical Examiner Department
Miami, FL

Learning Overview: The Symposium will provide a historic context for the formation of the American Academy of Forensic Sciences, describe the impetus for its formation, and examine the effects of its members on forensic science.

Impact Statement: Attendees will learn about the state of forensic science before, during, and shortly after the formation of the American Academy of Forensic Sciences through the perspective of the six founding Sections: Criminalistics, Jurisprudence, Pathology/Biology, Psychiatry & Behavioral Science, Questioned Documents, and Immunology/Toxicology

Program Description: The 2023 Interdisciplinary Symposium will examine the post-WW II state of the forensic sciences leading to the American Academy of Forensic Sciences' formation in 1948 and that defined its early years. In 1948, there were six founding AAFS Sections: Criminalistics; Jurisprudence; Pathology/Biology; Psychiatry & Behavioral Science; Questioned Documents; and Immunology/Toxicology. Speakers from each of these Sections will discuss their Section's forensic concepts, research, and applications before, during, and shortly after the Academy's founding (roughly 1945 through 1965). How the Academy's formation and its members helped advance the forensic sciences during those early years will also be addressed.

We will examine how during this era life, law, and forensic science looked so much different than today. This retrospective view of the Academy's founding will help us understand the AAFS' continued efforts today to improve the trustworthiness of forensic science through objective data that can be relied upon by the judicial system, Congress, and the public.

INTERDISCIPLINARY SYMPOSIUM

S4 The Formation of the American Academy of Forensic Sciences

Program:

1:15 PM – 1:30 PM	Welcome and Introduction of Faculty <i>Paul Messner, JD</i>
1:30 PM – 2:00 PM	Jurisprudence <i>Kenneth E. Melson, JD</i>
2:00 PM – 2:30 PM	Criminalistics <i>Barry A.J. Fisher, MS, MBA</i>
2:30 PM – 3:00 PM	Pathology/Biology <i>Christopher Milroy, MD</i>
3:00 PM – 3:15 PM	BREAK
3:15 PM – 3:45 PM	Psychiatry & Behavioral Science <i>Corina Freitas, MD; G. David Annas, MD</i>
3:45 PM – 4:15 PM	Questioned Documents <i>Carl R. McClary, MS</i>
4:15 PM – 4:45 PM	Toxicology (formerly known as Immunology) <i>George W. Hime, MS</i>
4:45 PM – 5:15 PM	Panel Discussion/Questions and Answers <i>Jessica Volz, DNP</i>

KEYNOTE ADDRESS

Open to All Meeting Registrants

Wednesday, February 15, 2023

8:30 AM – 9:30 AM



F. Scott Griffith

Dallas, TX

K. Scott Griffith is the founder and managing partner of SG Collaborative Solutions, LLC. He is the author of the world's first Collaborative High Reliability® and Collaborative Just Culture® improvement programs, independently audited and certified by DNV, a world-leading international accreditation organization.

Scott gained his reputation for world-class reliability and collaborative skills through success in high-consequence industries across the globe. He came to prominence as a leader in the field of aviation as an international airline captain and chief safety officer at American Airlines, and is widely recognized as the father of the airline industry's landmark Aviation Safety Action Programs (ASAP). He is the recipient of the Flight Safety Foundation's Admiral Luis de Florez Award for his outstanding contribution to aviation safety. He is the three-time recipient of the Federal Aviation Administration's Good Friend Award. Throughout his career, Scott has worked closely with government regulators in several high-consequence industries worldwide.

In 2000, the U.S. Surgeon General, David Satcher, extended a personal invitation to him to advise a Department of Health and Human Services committee on Blood Safety and Availability. From there, he applied his unique approach to focus on improving outcomes across multiple values in healthcare organizations, collaborating with hundreds of hospitals across the country. He is the recipient of the California Patient Safety Action Coalition Leadership Award.

In 2006, he retired from American Airlines and dedicated himself to just culture performance improvement integrations at several large healthcare systems, airlines, railroads, energy companies, emergency medical services, and fire and law enforcement agencies, leading many state- and nation-wide sectors. An acclaimed speaker, author, and socio-technical physicist, his experience brings insight into how the collaborative model supports a wide range of values and objectives, from patient safety and clinical outcomes to privacy, compassion, fiscal responsibility, customer satisfaction, and operational excellence.

He is the principal architect of the Sequence of Reliability® model of socio-technical improvement, bringing the science of reliability to diverse industries and organizations. He has pioneered the development of multiple predictive risk management strategies, including socio-technical probabilistic risk assessment (STPRA) and Reliability Management Systems (RMS). He has worked extensively with management, labor, and government officials and is widely recognized for his ability to help organizations achieve consensus results in support of common goals.

Scott holds a Master of Science degree in Physics from Texas A&M University and a Bachelor of Arts degree in English and Physics from Texas Christian University. His master's thesis contributed to the research and commercial development of the airborne windshear LIDAR project under grant from the Federal Aviation Administration (FAA) and the National Aeronautics and Space Administration (NASA).

His upcoming book, *The Hidden Science – Risk, Resiliency, and Reliability*, is scheduled for release November 7, 2023 by Harper-Collins Leadership.

PLENARY SESSION

Open to All Meeting Registrants

Wednesday, February 15, 2023

10:00 AM – 11:30 AM

Welcoming Remarks



The Role of Forensic Medicine in Forensic Science

Laura C. Fulginiti, PhD

President

American Academy of Forensic Sciences

Phoenix, AZ

Plenary Session Chair:

James R. Gill, MD

Office of the Chief Medical Examiner
Farmington, CT

Plenary Session Co-Chair:

Vincent J. Desiderio, Jr., MS

U.S. Postal Inspection Service
Lovettsville, VA

Speakers

Christian Crowder, PhD

Tarrant County Medical Examiner
Fort Worth, TX

Joyce L. deJong, DO

WMU Homer Stryker School of Medicine
Kalamazoo, MI

Pamela A.W. King, JD

Rochester, MN

Overview: Medicine is the science or practice of the diagnosis, treatment, and prevention of disease. Although considered part of the forensic sciences, forensic pathology and forensic anthropology are medical specialties. They use history, anatomic findings, and laboratory results to make diagnoses that are used by the public health and criminal justice systems. Unlike other forensic science disciplines that rely primarily on analytical tests (e.g., toxicology, DNA, fingerprint comparison) to obtain objective results, forensic anthropologists and forensic pathologists interpret both subjective and objective information to formulate their medical opinions.

Forensic pathologists and anthropologists give unpopular opinions and can come under a great deal of criticism and pressure. The National Association of Medical Examiners (NAME) published a position paper on medical examiner independence. Their survey showed that 82% of the forensic pathologists had experienced pressure regarding their medical opinions.

They noted: “No one should be made afraid to testify to the truth of their scientific convictions, when based on their direct examination of the evidence or their knowledge of the peer-reviewed literature. It is never appropriate for an authority, whether a litigating attorney, law enforcement officer, or an elected official, to threaten a forensic pathologist with loss of a job, position, or compensation based on testimony that is perceived to be counter to the authority’s wishes or to have resulted in the loss of a case.”

This pressure risks undermining the opinions of these professionals. The criminal justice system in the United States is indeed an adversarial system. This process, however, only should occur in the courtroom. Threats and retaliations against forensic science providers risk compromising our system of justice. The day when medical professionals are unwilling to participate in this adversarial process, whether called by the prosecution or the defense, or the plaintiff or defendant, is the day that we no longer have the best system of justice in the world.

PLENARY SESSION

Open to All Meeting Registrants

Forensic Pathology and Forensic Anthropology: An Update on Their Roles in the Criminal Justice System

Overview cont.

Questions that will be addressed include: How do these specialties fit into the Academy? How do they differ from the basic sciences? What challenges are they facing? In order to highlight the many challenges, high-profile trials, work-force shortages, social media and activism, roles in investigations, and bias will be explored.

To address these issues, there will be presentations by Dr. Joyce deJong, a forensic pathologist, and Dr. Christian Crowder, a forensic anthropologist. In addition, we will have a legal perspective from a sitting judge, the Honorable Pamela King.

Program:

10:00 AM - 10:10 AM	Welcome and Opening Remarks <i>Laura C. Fulginiti, PhD; James R. Gill, MD</i>
10:10 AM - 10:35 AM	The Forensic Pathology Perspective <i>Joyce L. deJong, DO</i>
10:35 AM - 11:00 AM	The Forensic Anthropology Perspective <i>Christian Crowder, PhD</i>
11:00 AM - 11:25 AM	The Judicial Perspective <i>Pamela A.W. King, JD</i>
11:25 AM - 11:30 AM	Panel Discussion <i>Laura C. Fulginiti, PhD, James R. Gill, MD, Joyce L. deJong, DO, Christian Crowder, PhD, and Pamela A.W. King, JD</i>

CASE BREAK SESSIONS

Case Break Sessions are modified sessions where interesting case presentations—typically of entertainment value—are made during a time when attendees can sit in on a session during what would normally be their breakfast time while learning at the same time.

CB1 Judicial Misconduct or Judicial Discretion: A Historical Perspective and Case Analyses

Wednesday, February 15, 2023

7:15 AM – 7:45 AM

.CE Hour: .5

Patricia Smith, MSL, ACP

Harris County District Attorney's Office
Houston, TX

Betsy Adelizzi, PhD

Missouri Southern State University
Joplin, MO

Learning Overview: The goal of this presentation is to create an open and honest dialogue about the criminal justice system and those taxed with the responsibility of ensuring a fair and just system through inclusion, diversity, and with public safety in mind. Attendees will learn about local, state, federal, and international cases and will be afforded an opportunity to be the “trier of fact” and play a role in sanctioning the sanctioners.

Impact Statement: This presentation will impact the forensic science community by reminding all attendees of their role in making positive and effective changes to the criminal justice system by focusing on fairness to all parties and accountability for all people involved, through collaborative research and practice with multiple disciplines.

The judiciary is a system of courts and judges interpreting the laws passed by the legislature. The judiciary has evolved over the past thousand years and continues to change in an attempt to meet the needs of society. The makeup of the judiciary originated with a Lord or his stewards and continued to evolve to the elected and appointed judges today. “The very first judges . . . were court officials who had particular experience in advising the King . . .”¹ The earliest days of the judiciary, prior to the 12th century, was barbaric at best and based on a type of divine justice.

Divine justice could involve the accused being forced to sink or swim as a way of proving their innocence. One’s guilt or innocence was not based on law, judicial discretion, or witnesses, but on chance, strength of the accused trying to force himself to sink to show innocence or remain on top, floating, to show his guilt.¹ Another example is a “medicine man” holding two hairs from an accused in his tent and the accused’s guilt or innocence was based on if those hairs remained in place the next day.²

The judiciary is arguably a system built around those people with legal expertise, ethical behavior, and fairness. As the judiciary’s evolution continued, the need for codes of conduct and constitutional clarity increased. There are times when the judiciary, or more specifically, certain judges argue judicial independence as a justification for unpopular or sometimes inappropriate conduct. According to Cynthia Gray, “A federal judge argued that the principles of judicial independence incorporated in the United States Constitution barred any sanction for “anything to do with anything that happened when the judge . . . was acting and deciding cases or in any phase of the decisional function,” including “anything that the judge does verbally or physically in the course of adjudication.”²

We will review the judiciaries of Canada, California, Texas, the United Kingdom, and Asia. Also, we will discuss specific Harris County cases and engage the audience through polling.

Reference(s):

1. History of the Judiciary. Courts and Tribunals Judiciary, London, July 26, 2021. <https://www.judiciary.uk/about-the-judiciary/history-of-the-judiciary/>.
 2. Gray, Cynthia. The Line Between Legal Error and Judicial Misconduct: Balancing Judicial Independence and Accountability. Hofstra Law Review: Vol. 32: iss. 4, Article 11. <http://scholarlycommons.law.hofstra.edu/hlr/vol32/iss4/11>
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CASE BREAK SESSIONS

CB2 Not Always What It Looks Like: Death Due to Tricyclic Antidepressant Overdose

Thursday, February 16, 2023

7:15 AM – 7:45 AM

CE Hour: .5

Marie E. Lasater, MSN
Texas County Coroner's Office
Houston, MO

Learning Overview: The goal of this presentation is to aid attendees in distinguishing forensic countermeasures used by suicidal persons who do not want to be ruled a suicide.

Impact Statement: This presentation will impact the forensic science community by exploring the use of a psychological autopsy when determining manner of death in a possible suicide.

This presentation describes a case study involving possible forensic countermeasures in a suicidal death involving grief, alcoholism, gabapentinoids, and nortriptyline and the process of accurately determining cause and manner of death. Toxicity of tricyclic antidepressants and their role in suicide is discussed, including cardiotoxicity and seizures. Aspects of the case, including investigation and differential diagnosis, are outlined.

As part of the death investigation, a psychological autopsy was performed, with the decedent's prescribing physician and only remaining relative (and heir) interviewed. Of note, the decedent had spent several years in her medical career in a urology clinic and was likely aware of drug toxicity. Her physician stated she specifically requested nortriptyline as an antidepressant. He was unaware of literature available on the internet promoting its use in the process of suicide. The decedent's heir was shocked to hear the death was ruled suicide. She was not aware of any suicidal ideation, but had been requested to relocate to live with the decedent, which she was unable to do at the time. Taking into consideration the decedent's history of alcohol abuse, empty bottles of alcohol at the scene, her knowledge of toxicology, and the location of the three empty bottles of medication found on the floor with their caps on, attempted forensic countermeasures (to preclude suicide) on the part of the decedent cannot be ruled out.

Performed by certified professionals, a psychological autopsy is a best practice postmortem data collection procedure performed in addition to any other official death examination. A psychological autopsy helps to reconstruct the proximate and distal contributing factors of an individual's death by suicide and document the most likely manner of death where that manner of death is equivocal and left undetermined by a medical examiner or coroner. Suicidology is an important methodology in the role of any death investigator.

CASE BREAK SESSIONS

CB3 Postmortem Assessment of Anaphylactic Shock Due to Hymenoptera Stings (Yellow Jacket *Vespula*)

Friday, February 16, 2023

7:15 AM – 7:45 AM

CE Hour: .5

Elena Forzese, MD
Messina University
Messina, ITALY

Claudina Pitrone, MD
Messina University
Messina, ITALY

Learning Overview: After attending this presentation, attendees will understand that Hymenoptera stings (bees, wasps) are among the most common causes of anaphylaxis, defined as a severe, rapid onset of a systemic allergic reaction which, if not promptly treated, can be fatal.

Impact Statement: This presentation will impact the forensic science community by highlighting the role of ancillary postmortem investigations in the diagnosis of anaphylactic shock caused by bee stings when no macroscopically evident signs are detected during either on-spot examination and autopsy.

To this regard, we here present the case of a 45-year-old man who, according to the circumstantial data collected, was hit by a swarm of bees while opening a shed at work, dying shortly thereafter. No signs of bee stings were macroscopically evident during the survey, nor was any sign of anaphylactic shock (angioedema, pharyngeal/laryngeal oedema, petechial hemorrhages) observed during autopsy. The only macroscopic findings consisted of mild pulmonary edema with mild swelling of the upper lip; heart and coronary arteries were macroscopically undamaged.

Considering that the absence of postmortem findings does not necessarily exclude the diagnosis of anaphylaxis (since macroscopic signs can resolve during the postmortem period), to clarify the possible cause of death, histological and biochemical investigations were performed, especially in light of the available circumstantial data. Biochemical assays included serum sampling for Radioallergosorbent testing (RAST) for bee venom specific IgE, which showed positive for the venom of the yellow jacket (type of *Vespula*); other biochemical tests highlighted an increase in tryptase and troponin; samples of heart, larynx, trachea, lungs, and spleen were also collected for immunohistochemical tests in order to evaluate the mast cells infiltrate using anti-tryptase antibodies.

Therefore, based on anamnestic (absence of any other pathology worthy of note), circumstantial (exposure to bee sting), histological, and biochemical data, the diagnosis of death was stated as due to anaphylactic shock although there was an absence of macroscopic signs at autopsy.

The case showed the importance of second-level investigations for the postmortem diagnosis of anaphylactic shock, highlighting the usefulness of biochemical and immunohistochemical analysis. In complex cases, a multidisciplinary approach, such a criteria exclusion cause of death, represents an important method of investigation. Moreover, in such cases, the circumstantial data can provide important data to perform specific postmortem investigations aimed at finding the substance responsible for the anaphylaxis.

LUNCHEON SEMINARS

Pre-Registration Required

LS1 The Lindbergh Kidnapping Suspect No. 1—The Man Who Got Away

Thursday, February 16, 2023

12:00 PM – 1:30 PM

CE Hours: 1.0

Lise A. Pearlman, JD* (Ret.)

Author

Oakland, CA

Learning Overview: Attendees will gain insight into how key forensic evidence was suppressed and physical evidence altered to convict an innocent man of “the crime of the century.”

Impact Statement: The anticipated impact on the forensic science community is greater awareness of ways in which members’ forensic analysis and testimony can be misused (e.g., suppression of pretrial notes, overstating conclusiveness of findings, denial of a fair opportunity to the other side to test physical evidence) to cause a miscarriage of justice. This talk will also provide an example of how forensic scientists can play an important role in revealing the truth and exonerating the wrongly convicted.

Program Description: Luncheon talk by author Lise Pearlman on a proposed shocking solution to the 90-year-old mystery of the 1932 kidnap/murder of Charles Lindbergh, Jr. based on the best-selling 2020 true crime book, *The Lindbergh Kidnapping Suspect No. 1—The Man Who Got Away*. The talk will describe the framing of Bruno Richard Hauptmann for the murder of Charles Lindbergh, Jr. and the revelation of Suspect No. 1 whom the New Jersey State Police let get away with the crime. The talk will focus on wood evidence, fingerprints, and handwriting analysis, and address disparities between the “evidence” presented at trial and related contradictory evidence that was concealed by the prosecution and consequently not presented to the jury.

LUNCHEON SEMINARS

Pre-Registration Required

LS2 Forensic Sciences and Popular Poetry: A Lighter Way of Teaching People How Science Works

Friday, February 17, 2023

12:00 PM – 1:30 PM

CE Hours: 1.0

Jose A. Medeiros, PhD

Brazilian Federal Police

Cabedelo, PB, Brazil

Learning Overview: Upon completion of this luncheon seminar, the participant should be able to know how the dissemination of forensic sciences among people can be efficient and lighter through popular poetry, based on this Brazilian testimony.

Impact Statement: Showing the international forensic community how the dissemination of forensic sciences through popular poetry is effective among the general public and has encouraged Brazilian forensic scientists to identify themselves with their labor as well as with a literature genre (including woodcutting illustrations) that has become essentially Brazilian and that today is an example of national intangible cultural heritage.

Program Description: This work is about an initiative that has been developed since 2012: to bring together Forensic Science and popular poetry in a simple and accessible format and share it with the lay public. The path used was “Literatura de Cordel”, a form of literature originally European, but which found fertile ground in the Northeast of Brazil, especially from the 19th century onwards. Like a Limerick, the cordel booklet presents a story usually in a humorous tone and in colloquial language. Today there are already 14 stories about CSI, Forensic Engineering, Genetics, Jurisprudence, Environmental, Toxicology, Children’s History, etc. and more than 18 thousand copies distributed free of charge to people from all Brazilian regions at forensic events, criminalistics units, schools and institutions.

LUNCHEON SEMINARS

Pre-Registration Required

LS3 **Junk Science and the American Criminal Justice System: An Inside Perspective**

Friday, February 17, 2023

12:00 PM – 1:30 PM

CE Hours: 1.0

M. Chris Fabricant, JD
The Innocence Project
New York, NY

Learning Overview: After attending this presentation, attendees will have gained insight from an insider's perspective into the heart of a broken American criminal justice system where junk science is just one piece in maintaining the status quo, including insight from the author's recently released, award-winning book, *Junk Science and the American Criminal Justice System*.

Impact Statement: This presentation will impact the forensic science community by demonstrating the perspective of the premier junk science wrongful conviction investigative and litigation organization—the Innocence Project—that ushered forensics through a time that saw statements such as “one-in-a-million chance” as acceptable science into in a new era of reliability, validation, and, most of all, the accountability we expect to see today.

Program Description: In 2012, the Innocence Project began searching for prisoners convicted by junk science, and three men, each convicted of capital murder, became the author's clients. In his book, *Junk Science and the American Criminal Justice System*, the author chronicles his fight to overturn their wrongful convictions and end the use of the bad science that destroyed these men's lives. The quest took many turns and the story weaves together courtroom battles over faulty forensics from Mississippi to Texas to New York City and beyond. The book describes a journey into the heart of a broken, racist system of justice and the role forensic science plays in maintaining that broken system.

In addition to some of the interesting case studies demonstrated in the book, the author's career documents the slow but steady evolution of the field of forensics as a whole and the difficult challenges and barriers that the Innocence Project, lawyers, judges, other stakeholders, and forensic scientists themselves have faced in evolving and moving forward from duplicitous times.