



# 14<sup>TH</sup> ANNUAL TRI-DIVISION EDUCATIONAL CONFERENCE

NOVEMBER 18 - 22, 2019

# Embassy Suites by Hilton West Valley City, UT







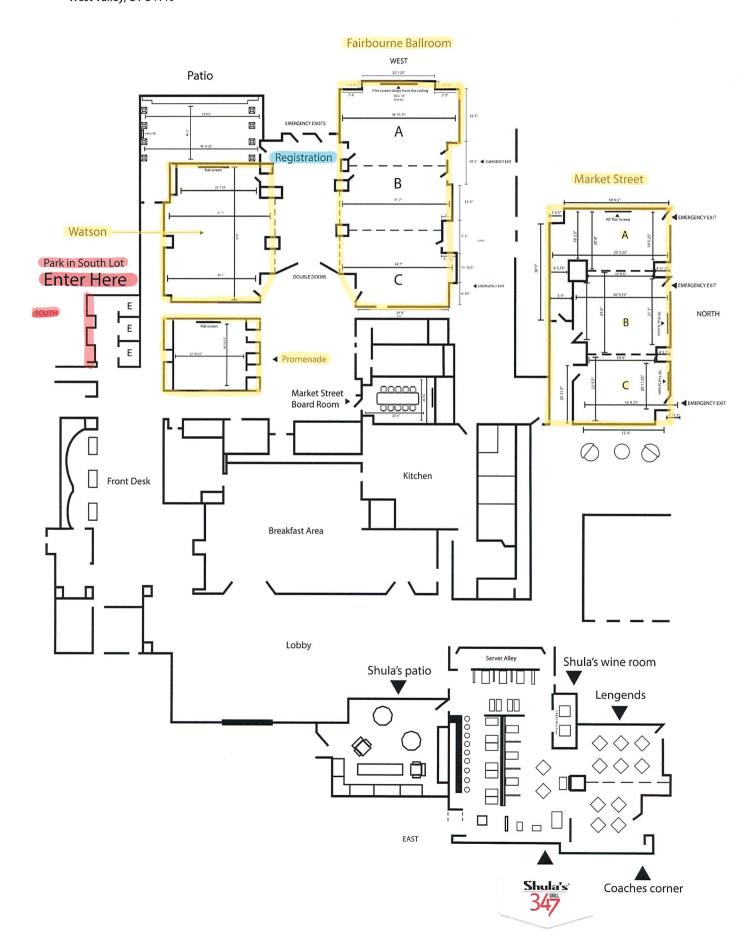
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# EMBASSY SUITES SALT LAKE WEST VALLEY CITY GROUND FLOOR

3524 S. Market St. West Valley, UT 84119



# **Meeting Agenda**

# Monday - November 18, 2019

8:00 - 8:45:

Registration/Packet Pick-up - Hot Breakfast Provided

Room: Watson

General Session – Fairbourne Ballroom

8:45 - 9:00:

Welcome – West Valley Police Department

9:00 - 12:00:

The Application of Criminal Investigative Analysis (CIA) and

Geographic Information System in Solving Cold Cases

Gregory M. Cooper and Mike King

12:00 - 1:00:

Lunch - On Your Own

1:00 - 2:30:

M-VAC

Francine Bardole and Wayne Carlsen

2:30 - 3:00:

**Networking Break With Refreshments** 

3:00 - 5:00:

DNA

Heather Mills and Katrina Welker

# Tuesday - November 19, 2019

8:00 – 9:00: Continental Breakfast Provided – Watson

General Session - Fairbourne Ballroom

9:00 – 12:00: The Boston Marathon Bombing: A CSI's Perspective

Michael Connolly

12:00 – 1:00: Lunch – On Your Own

1:00 – 3:00: Case Study: Century 16 Movie Theater Shooting, Aurora, Colorado

Maria C. Pettolina and Charles S. DeFrance

3:00 – 3:30: Networking Break with Refreshments

3:30 – 5:00: Continued: Century 16 Movie Theater Shooting, Aurora, Colorado

5:30 – 7:00: Vendor Social - Watson

# Wednesday - November 20, 2019

# **Breakout Sessions**

Promenade	Market Street A	Market Street B	Market Street C	
Continental Preakfast Provided				
Continental breaklast Provided				
	It's Getting Hot in			
Electronic	Here: Thermal			
Evidence	Paper Processing	Forensic	Flash	
	***Off-site***	Practitioner	Photography at the Crime Scene	
		What I Learned	Scene	
		from Lawyers		
Lunch - On Your Own				
	Forensic			
Military Suicidos	Document Examination:	Forensics and	Behind the	
willtary Suicides	How We Can Help	Environments	Shutter	
	You			
Networking Break with Food				
.,	Photographing	_Continued:	RENO 411	
Vapor Phase Technique	Bullet Holes in Glass	Hazardous	Let's share the Wealth!	
	Electronic Evidence  Military Suicides  Vapor Phase	Electronic Evidence  Electronic Evidence  It's Getting Hot in Here: Thermal Paper Processing  ***Off-site***  Lunch - On 'V  Forensic Document Examination: How We Can Help You  Networking Bree  Vapor Phase Technique  Photographing Bullet Holes in	Electronic Evidence  Electronic Evidence  It's Getting Hot in Here: Thermal Paper Processing ***Off-site***  Wellness for the Forensic Practitioner  What I Learned from Lawyers  Lunch - On Your Own  Forensic Document Examination: How We Can Help You  Networking Break with Food  Vapor Phase Tachnique  Photographing Bullet Holes in  Plazardous Forensics and Hazardous Environments  Continued: Forensics and Hazardous Environments	

# **WEDNESDAY**

6:00 – 9:00: Murder Mystery Dinner Theater

https://www.thedinnerdetective.com/



Come Put Your Investigative Skills To The Test!!!

# Thursday - November 21, 2019

# **Breakout Sessions**

	Promenade	Market Street A	Market Street B	Market Street C		
8:00 - 8:30	Continental Breakfast Provided					
8:30 - 8:45	Continental Dreaklast Provided					
9:00 - 9:30	Emotional Wellness for the Forensic Practitioner	1925 Cold Case Homicide Investigation	Detergent and Chemical Suicides	Simplified Photoshop Charts for Latent Print (or footwear) Examiners		
9:30 - 10:00						
10:00 - 10:30						
10:30 - 11:00						
11:00 - 11:30			What Have I Done? How to			
11:30 - 12:00			Prepare a Curriculum Vitae			
12:00 - 1:00	Lunch - On Your Own					
1:00 - 1:30	Crime Scene Examination: The Complete Package	Utah Cold Case Database	NIBIN	Long Exposure Photography at the Crime Scene		
1:30 - 2:00						
2:00 - 2:30		Cold Case Investigations				
2:30 - 3:00						
3:00 - 3:15	BREAK WITH FOOD					
3:30 - 4:00	Continued: Crime Scene Examination: The Complete Package	Footwear the forgotten Evidence	A Sticky Situation: Tape Processing	Continued: Long Exposure Photography at the Crime Scene		
4:00 - 4:30						
4:30 - 5:00						

# Friday - November 22, 2019

# General Session - Ballroom

8:00 - 9:00:

**Breakfast Provided** 

9:00 - 12:00:

Seeking Answers and Finding Empathy: Lessons from the Cold

**Podcast** 

**Dave Cawley** 



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Improving the Quality of Forensic Evidence







# **Presentation/Workshop Abstracts**

# Monday - November 18, 2019

# The Application of CIA and GIS in Solving Cold Cases

This presentation includes two interrelated investigative methodologies that when utilized in tandem provide law enforcement with a more comprehensive perspective of an offenders behavior, related personality characteristics and subsequent investigative strategies to identify and apprehend the offender. It will be delivered in a coordinated approach that highlights the behavioral and geographical elements of the method and manner of criminal activity. Included will be a review of Criminal Investigative Analysis (CIA), emphasizing "Ten Filters of Profiling" combined with the use of GIS, (Geographic Information Systems) into the investigative process. Collectively, GIS and CIA analyze the relevant locations and characteristic behaviors of single and connected series of crimes to determine commonalities and personality factors. They provides a clearer view of the "theater of events," crime scenes and locations associated with victimology and suspectology. The analyzed data can result in unbiased insight into many aspects of an investigation.

# **MVAC** presentation

Presentation will focus on cases I have worked using M-Vac technology both locally and throughout the United States. The Angie Dodge case will be one of the main cases presented. DNA test results from M-Vac cases as well as various applications where the M-Vac can be utilized will be discussed.

# <u>DNA</u>

This presentation will focus on the varying ways the Utah Bureau of Forensic Services can obtain DNA from case samples. Also to be discussed are turn-around times and interesting case studies.

# Tuesday - November 19, 2019

# The Boston Marathon Bombing: A CSI's Perspective and Experience

April 15, 2013 was another beautiful spring day in Boston for the 117<sup>th</sup> running of the Boston Marathon. The race would begin at about 9am in Hopkinton, Massachusetts and finish in the Back Bay area of Boston on Boylston Street. The elite men and women winners crossed the finish line around noon. However, less than 3 hours later, two explosions would rock the finish line area and change the lives of thousands of people forever.

This discussion will address the challenges and successes of processing an 8 block, post blast crime scene from a Crime Scene Investigator's point of view. A candid conversation regarding the strains and stresses on a CSI Unit, the personnel and the approach to healing process after all of the smoke had cleared.

# Case Study: Century 16 Movie Theater Shooting, Aurora, Colorado

On 20 July 2012 at the midnight showing of the premier for The Dark Knight, a shooter entered through the back door to the theater and opened fire on the audience with multiple firearms. Twelve people were killed and 58 wounded. The shooter was arrested behind the theater by responding officers from the Aurora Police Department. In addition to the mass shooting scene at the theater, the shooter's apartment had also been extensively booby trapped with improvised explosive devices. The presentation will cover a general overview of the events of the shooting, bomb technician operations at the theater, render safe operations at the shooter's apartment, crime scene processing in the theater, the shooting reconstruction at the theater, and the emotional impact on those involved. An emphasis will be placed on the challenges presented by these types of large-scale and multi-scene incidents and the solutions that were used at these scenes.

# Wednesday - November 20, 2019

# Electronic Evidence (9:00am - 11:00am)

Crime scene investigators have a significant amount of training in the collection of traditional evidence such as DNA and fingerprints. We are trained how to identify, collect and properly package this kind of evidence to prevent further damage to the device. In the last 20 years, digital evidence found in computers, cell phones, and other electronic devices has become equally valuable to criminal investigations. But, do you how to keep it safe during collection and packaging? Could you possibly compromise this evidence if you don't know how to collect and package it? During this lecture, attendees will be taught basic information regarding the value of modern digital evidence, how it may be compromised, and how it can be safely preserved. Attendees will also learn about other types of digital evidence that is available to investigators such as call data records, tower dumps, and other location data.

# It's Getting Hot in Here: Thermal Paper Processing (workshop) (9:00am - 11:00am)

In this hands-on workshop, students will have the opportunity to use a variety of chemicals to process thermal receipt papers for latent prints. Through experimentation with different techniques, the student will come away with a better understanding of which chemicals may be used on thermal receipts without destroying the paper and how to properly use them.

\*\*\*Note: This course is being held at the Utah State Crime Lab located at 4451 S. Constitution Blvd. Taylorsville, UT 84129\*\*\*\*

# Emotional Wellness for the Forensic Practitioner (9:00am – 11:00am)

This presentation addresses the affects cumulative stress has on forensic practitioners and their families. The presentation will also discuss some warning signs of PTSD and provide coping mechanisms for resiliency

# Flash Photography at the Crime Scene (workshop) (9:00am – 12:00pm)

Flash photography is an invaluable skill for crime scene personnel. However, a lot of forensic science professionals would like to learn more about how to get the most out of their flash unit. This lecture discusses the principles of flash photography at the crime scene and helps prepare the student to change flash settings and camera settings to get desired flash effects. The workshop will include multiple practical exercises in flash photography. Topics will include using TTL mode, flash power, flash positioning, off-camera flash, so students are encouraged to bring their cameras and related equipment to take full advantage of the workshop material.

# What I Learned from Lawyers (11:00am – 12:00pm)

This presentation is built around 39 years of testifying in local, State and Federal Courts, and information culled from "Courtroom Prep" classes and a discussion of why YOU might want to attend one. This presentation will include recent trends and the directions of attacks regarding impression evidence from the Defense community. Open discussion is always welcome.

# Suicides in the Military (1:00pm – 3:00pm)

"The U.S. military finished 2018 with a troubling, sad statistic: It experienced the highest number of suicides among active-duty personnel in at least six years...A total of 321 active-duty members took their lives during 2018...suicide continues to present a challenge to the Pentagon and the military services..." (military.com) This presentation will take a close look at suicide cases within the military, specifically the Navy and Marine Corps. What is the rate of suicide among military branches and how does that compare to the general U.S. population? What are primary methods being used to commit suicide? What factors or circumstances effect suicide rates and methods?

# Forensic Document Examination: What Can We Do For You? (1:00pm - 3:00pm)

What is a forensic document examiner? How to collect forensic document evidence and submit it for testing. Case examples and a bit of hands on understanding of forgeries.

# <u>Advanced Forensic Evidence Identification, Collection and Packaging in Hazardous</u> Environments (workshop) (1:00pm – 5:00pm)

The identification, documentation, processing, collection, and packaging of forensic evidence requires certified crime scene investigators (CSIs). The potential exists, from acts of terrorism, accidents, or natural disasters to create hazardous environment crime scenes. CSIs must be able to enter these hazardous, contaminated areas to properly identify, document, process, collect, package, and preserve both, conventional and nonconventional, forensic evidence.

This workshop will address the paradigm shifts that are required for CSIs to safely conduct a crime scene investigation to collect and package Hazardous Material Evidence and Conventional Forensic Evidence in these environments.

# Behind the Shutter (1:00pm - 3:00pm)

Digital cameras are indispensable tools for forensic science professionals both in the field and behind the bench. While the advent of digital photography revolutionized how physical evidence is documented and processed, most forensic science professionals know little about the nerdy technology and theories behind their favorite crime scene or evidence photographs. This fun lecture answers questions like how to digital sensors actually work? Why does aperture size affect depth of field? Why do images get grainy as you increase ISO? And what's the deal with all these file types? Students will find themselves walking away with some fun facts and an increased understanding of what it actually takes to produce a great photograph.

# <u>The Development of Latent Fingermarks from Cartridge Casings and Cleaned Metals</u> <u>Using a Novel Vapor Phase Technique</u> (3:30pm – 5:00pm)

This presentation will begin by providing attendees with a background to a new novel chemical fuming process that has been shown to offer significant advantages over traditional latent fingermark enhancement processes across a range of metallic substrates (copper, brass, stainless steel, etc). Described by the UK Ministry of Defense as 'revolutionary' and 'ground-breaking', the unique ability of this process to recover fingerprint ridge patterns when none of the latent fingermark residue actually remains on the substrate (i.e. the surface has been wiped clean, washed, submerged in water, heated, or a combination of these) will be explored and practical examples illustrated and discussed.

# Photographing Bullet Holes in Glass (3:30pm – 5:00pm)

Broken glass can contain useful event reconstruction information. However, glass is fragile and the information can be easily lost if not handled with care or in a timely manner. It is also very difficult to document because it is transparent and reflective. The patterns created when a bullet fractures a piece of glass are consistent and easily interpretable by trained and qualified experts. This presentation will focus on newly developed method for documenting bullet fractures in glass to ease direction interpretation by the expert. Surface Reflection Photography is performed with the standard camera equipment carried by CSIs. The class will include a demonstration of the technique and time for participant practice. Other issues in glass analysis will be discussed, time permitting.

# RENO 411... Let's share the Wealth! (3:30pm - 5:00pm)

And now for something completely different... There were many interesting classes, presentations and workshops at the IAI International this year in Reno, and the goal of this forum is to have those who attended, or wanted to attend, give a short synopsis, or ask questions, about a subject or two. This might also include a potentially interesting item we saw a vendor display or present on. This is intended for Conference attendees who were in Reno or those who have an interest in what was presented there, and is not as time for Vendor reps to give a pitch (they may attend, if they wish, but only speak when asked to...LoL...seriously!). Open to all Attendees to come prepared to give a 2-10 minute presentation leading to discussion, centered on important subjects presented at the Reno Conference, or ask a question regarding that Conference. Because, as we know...IT WIILL BE BACK....

# Thursday - November 21, 2019

# **Emotional Wellness for the Forensic Practitioner (9:00am – 11:00am)**

This presentation addresses the affects cumulative stress has on forensic practitioners and their families. The presentation will also discuss some warning signs of PTSD and provide coping mechanisms for resiliency

<u>1925 Cold Case Homicide Investigation</u> (9:00am – 12:00pm)

# <u>Detergent and Chemical Suicides</u> (9:00am – 11:00am)

With the increase in suicides utilizing easily accessible chemicals, this presentation will cover several common means of suicide that pose a significant risk to first responders and forensic technicians. The presentation will review detection methods, PPE requirements, and review when to escalate to HAZMAT crews. A recent case in Utah County will be reviewed and lessons learned will be discussed.

# <u>Simplified Photoshop Charts for Latent Print Examiners (or footwear)</u> (9:00am – 12:00pm)

If you've ever had an elementary school teacher say "Your answer is correct, But, Show Me Your Work!" We understand the direction things are going in the Impression Evidence Disciplines. For those of you a little nervous about Photoshop, this will present a simplified version of how it can be used to document and demonstrate your conclusion to your verifier, supervisor, defense expert or counsel, or to a jury, and why it is increasingly important. Contemporaneous documentation is becoming more important to us for supporting and presenting the foundation and integrity of our conclusions. We may even touch briefly on GYRO...but only briefly. There's more than one way to skin a ..... Too last century....do it.

This is intended to be a "Charts 101" level workshop. I'll have an outline and process description for a simple chart.

\*\*\*Note: Please bring a laptop loaded with any version of Photoshop, Photoshop Elements, or some equivalent programs\*\*\*

# What Have I Done? How to Prepare Your Curriculum Vitae (11:00am - 12:00pm)

This lecture will give the student a better understanding of the difference between a curriculum vitae (CV) and a resume, the importance of having one, and how to put one together.

# <u>Crime Scene Examination – The Complete Package From Arrival to Reconstruction</u> (Workshop) (1:00pm – 5:00pm)

This course is created for forensics investigators both young and not so young. The course begins by going offering participants a look at the "back to basics" concepts that often get forgotten in cases. This course was designed from a "generalist" CSI's point of view and will cover a wide spectrum of topics to include, but not limited to Crime Scene Photography and Documentation, Crime Scene Analysis and Evidence Considerations, Trace and Biological Evidence, ALS, Bloodstain Pattern Recognition, Documentation and Analysis, Shooting Incident Reconstruction, Crime Scene Reconstruction and Courtroom Testimony.

As various concepts are covered in class, real cases will be assigned to participant's which will allow them to more firmly grasp the ideas and methodologies being discussed. During portions of the class, Doug highlights mistakes he's made over his career to reinforce the importance of good systematic processes and procedures when examining and processing crime scenes.

The class concludes with students conducting a basic Crime Scene Reconstruction of an assigned case. Students will work in groups using the information they learned in class and the provided case information to assemble a working theory of what may or may not have transpired in their cases.

This course it not designed to make you an expert in Crime Scene Investigation, but to provide participants with a better understanding of the diverse nature and cooperative effort that many of these investigations take on.

# How and Why the Utah Cold Case Database was Created (1:00pm - 2:00pm)

Discussion on how the Utah Cold Case Database came about and why it was needed. The struggles, the Successes, and how the combination of a Cold Case Database and Cold Case Crime Analyst is making the successes happen.

# Intro to the NIBIN Program and the Firearms Section of the UBFS Crime Lab (1:00pm – 3:00pm)

Topics of discussion will include an overview of the NIBIN program, including using NIBIN as a screening tool and having agencies enter in their own cases, along with other services provided by the FATM section and what evidence can and/or should be submitted for various types of analyses.

# <u>Long Exposure Photography at the Crime Scene (3:00pm – 5:00pm)</u>

Crime scene personnel rarely find themselves working in well lite conditions. Many crime scenes occur outdoors and at night, which is why skills in long exposure photography become a lifesaver. This workshop discusses the fundamentals of long exposure photography in crime scene situations. Students will learn how to properly set-up their camera and other equipment to capture well exposed and in focus photographs with little to no ambient light. The workshop will include multiple practical exercises in long exposure photography including painting with light techniques. Students are encouraged to bring their cameras and related equipment to take full advantage of the workshop material.

# Footwear, the Forgotten Evidence, to Quote Dwane (3:30pm - 5:00pm)

Why is footwear evidence overlooked at scenes when it can be so useful and interesting? Dwane Hilderbrand entitled his book this, The Forgotten Evidence, because it is often lost in the shuffle or obliterated before it can be documented and preserved. This will be a review of some interesting footwear cases from West Valley Days and My time in Nevada including unusual circumstances and unusual substrates.

# <u>A Sticky Situation: Tape Processing (workshop)</u> (3:30pm – 5:00pm)

In this hands-on workshop, students will have the opportunity to use a variety of chemicals to process tape for latent prints. Through experimentation with different techniques, the student will come away with a better understanding of which chemicals may be used on tape and how to properly use them.

# Friday - November 22, 2019

# Seeking Answers and Finding Empathy: Lessons from the Cold Podcast

The Cold podcast is an 18-episode examination of the unsolved 2009 disappearance of Susan Powell from West Valley City, Utah. Dave will discuss the origins of his investigation, the surprising discoveries made along the way and the unanticipated public response.

# **Biographies**

# Travis Ashdown

Travis Ashdown is an IAI certified forensic technician. He currently works with the Utah County Sheriff's Office. His assignments include crime scene investigation, fingerprint processing, and also does both mobile and computer forensics. He also currently teaches several courses at Utah Valley University as a adjunct professor.

# Francine Bardole

With twenty-five-plus years in the field of Criminal Justice, Francine has invested the past fifteen years becoming an expert in her field of Crime Scene Investigation and Forensics, educating the next generation of investigators, helping solve cold cases, discovering and implementing a superior tool for collecting DNA and giving a voice to silent victims.

She has assisted and consulted with numerous law enforcement agencies on cold cases throughout the United States and has become exceptional at determining which items of evidence will be the most probative for touch DNA and which type of DNA testing offer the best results. Using the M-Vac and M-Vac filtering device, Francine has produced successful results helping identify possible suspects through full or comparable DNA profiles. She has developed a method by which DNA can be obtained from shell casings, firearm components and other small items of evidence where DNA is difficult to collect using traditional methods.

"Being open to new forensic discoveries and methods that can be used for better collection of evidence is how I can help law enforcement and devastated families find closure for the silent victims." Francine Bardole

# Wayne Carlsen

Wayne has spent his career researching and commercializing products including the M-Vac. His last seven years have been exclusively focused on DNA material collection in the forensic industry. He is a Mechanical Engineer with a Masters of Aeronautical Engineering with degrees from Utah State University and George Washington University. He has had hands on experience from metal working to critical care products. He has researched, developed and commercialized medical devices and testing equipment for 27 years. He is an innovator and problem solver. He has worked at NASA, Utah Medical Products, Ballard Medical Products, Kimberly Clark and M-Vac Systems. He worked in an advisory role in the development of the M-Vac from 1999, working closely with Dr. Bruce Bradley, the inventor of the M-Vac, ultimately leading the M-Vac commercialization team. He currently leads research, development and operations. He enjoys his family and regularly engages in running, soccer, hiking, biking, reading and photography.

# **Dave Cawley**

Born and raised in Utah, Dave has spent the entirety of his career in the Beehive State. He is a 2003 graduate of the University of Utah's journalism school and went to work as a field reporter directly out of college. He joined KSL Newsradio in 2012, taking over as the Executive Producer for the afternoon news. In early 2018, he moved into a new role as Executive Producer of Digital Content. On November 14, 2018, Dave launched the podcast series Cold, focused on the unsolved disappearance of Susan Powell. Cold reached #1 on the Apple podcast chart on the day of its release. Outside of the newsroom, Dave enjoys exploring the nooks of America's backcountry. He has backpacked from heights of Hawaiian cliffs to the depths of red rock canyons. The Natural History Museum of Utah and the High Desert Museum in Bend, Oregon have exhibited his photography

### Jason Cole

Jason is a Technical Sales Specialist for Foster + Freeman. Jason began his Law Enforcement career as a police officer for the Sandy City (Utah) Police Department. Later he was reassigned to the Investigations Division as the detective over juvenile crime and domestic violence crime. He also began receiving training in crime scene investigation and began to process major crime scenes for the department. In 2001 Jason left the Sandy City Police Department and began working as a Forensic Investigator for the West Valley City (Utah) Police Department. In 2007 he was promoted to be the Forensic Director of the West Valley City Police Department Forensic Services Unit. In 2010 Jason left the West Valley City Police Department and accepted a position as a Latent Print Examiner with the Henderson (Nevada) Police Department. Jason served on the Board of Directors for the Utah Division of the IAI for over 10 years, including serving as President. He was awarded the Utah Division of IAI Outstanding Achievement Award in 2005. Jason has served on the Board of Directors for the Nevada State Division of the IAI since 2010, including 6 years as President. Jason works parttime as a Latent Print Examiner for the Loudoun County Sheriff's Office. Jason serves on the Board of Directors for the International Association for Identification. Jason is a member of DMORT region IX.

# **Michael Connolly**

Michael Connolly is a 22-year veteran of the Boston Police Department. During his time with the Department, he has worked as a patrol, plain clothes and bike Officer. Since 2001, Mike has been assigned to the Crime Scene Response Unit (CSRU). He has been a trained Ten Print Examiner since 2001, is a certified Crime Scene Investigator with the International Association for Identification since 2012 and has been the Lead Training Coordinator for CSRU since 2009. Mike has developed training for newly assigned Officers in CSRU, recently appointed Detectives and Sergeants, Detective In-Service as well as specialized units. He has also trained other local and federal agencies.

He was a lead developer of RAPID, a multi-agency investigative exercise that included Boston and eight other surrounding cities and towns. The Regional Agency Practical Intelligence and Investigative Drill (RAPID) was a 2-day exercise created specifically for investigators that challenged their knowledge of information gathering, technology and their ability to communicate with other agencies to achieve a common goal.

Mike is Lead Instructor with the State Department's International Antiterrorism Assistance Program (ATA), teaching the course, "Terrorist Crime Scene Investigations". The ATA program trains law enforcement personnel from friendly governments that deal with terrorism. He has been fortunate to train and learn alongside Police Officers from Bosnia-Herzegovina, Peru, Jordan, Indonesia, Tunisia, Bangladesh, Lebanon and other countries.

He is also a Lead Instructor for the Advanced Forensic Investigations for Hazardous Environments for the National Center for Biomedical Research and Training (NCBRT) at Louisiana State University (LSU). The course is designed for students to develop the necessary knowledge and skill set to investigate chemical, biological, radiological, nuclear and explosive (CBRNE), or hazardous environment crime scenes for the identification, documentation, preservation and collection of forensic evidence.

However, his proudest accomplishment is being married for 22 years to his wife Mayra and having three beautiful children (Emma 17 and twins Liam and Harry 15).

# Gregory M. Cooper

Only one of two men could solve a 3,300 year-old mystery after a mound of homework, a 14 hour plane flight, and two weeks in Egypt surrounded by hieroglyphics, archeologists, Egyptologists and lots of sand. Gregory Cooper and his partner, Mike King, were chosen by The Discovery Channel from a competitive field of over 50 expert detectives worldwide to do just that.

Using modern forensic science, new technology accelerators, and their collective 60- year background in FBI profiling, criminology, detective work, and police experience— this dynamic duo was able to solve one of the world's oldest murders.

"The methodologies used to solve a crime 3 days ago are the same methodologies we used to solve a crime 3,300 years ago, or roughly 1,204,500 days ago." ~ Greg Cooper

This powerful proven experience makes Gregory Cooper ideally suited to be the Executive Director of the Cold Case Foundation. His history in solving the toughest criminal cases of our time has culminated in the creation of his legacy foundation.

Cooper has worked as an FBI Profiler, Law Enforcement Administrator, Police Training/Instructor, University/College Professor, and an International and Domestic Threat Assessment Advisor. He is an expert in Criminal Profiling, Prescriptive Interviewing and Interrogation, Investigations, and Multi-Agency Investigative Task Force consultation. Cooper has given Expert Witness testimony based on his work in serial crimes and cases involving homicide, sexual assault, kidnapping, terrorism, political corruption, white collar crime, product tampering, abduction, arson and bombing.

# Charles S. DeFrance

Charles has worked for the Federal Bureau of Investigation since 1996 when he entered the Firearms-Toolmarks Unit of the Laboratory Division. DeFrance was certified as a Firearms-Toolmarks Examiner and was an instructor who helped develop and teach the Bullet Trajectory Reconstruction School for four years. In 2001, he graduated from the FBI Academy and has served as a Special Agent assigned to field divisions in Washington, DC; San Juan, Puerto Rico; and Denver, Colorado. He has been a member of the Evidence Response Team (ERT) for 17 years, 9 as a team leader, and is currently the Senior Team Leader over the 32-person Denver ERT covering the states of Colorado and Wyoming.

# Jennifer Gelston

Jennifer Gelston is a Senior Forensic Scientist and the NIBIN Program Administrator for the Utah Bureau of Forensic Services (UBFS). Jennifer has a B.S. in Psychology from the University of Louisiana at Lafayette and a Master's degree in Forensic Science from the University of New Haven. She started her career in 2005 as a forensic technician at the Acadiana Crime Laboratory in New Iberia, Louisiana and attended NIBIN acquisition training in 2006. In 2010, Jennifer completed the ATF's National Firearms Examiner Academy and transferred to the UBFS in 2012 as a Firearm and Tool Mark Examiner. She is a member and past president of the Louisiana Association of Forensic Scientists and the Utah Chapter of the IAI. Jennifer is also a member of the Association of Firearm and Tool Mark Examiners (AFTE) and is currently the Chair of the Technical Program Sub-Committee of the Training Seminar Steering Committee, the Chair of the Copyright Sub-Committee, and the editor of the AFTE Journal.

### **Brent Horn**

Dr. Brent Horn is an Associate Professor of Criminal Justice at Weber State University. He currently is the Director of Forensic Science Programs and Chair of the Department of Criminal Justice. Dr. Horn earned a BS in Chemistry, and PhD in Analytical Chemistry from Brigham Young University, and a MS in Chemical Physics from the California Institute of Technology. Before coming to Utah, he worked for Sandia National Laboratory developing national security technology for counterterrorism, facilities protection, and critical incident response. After joining the faculty at Weber, Dr. Horn volunteered for 11 years in the Chemistry Section of the Utah Bureau of Forensic Services working controlled substance cases. His research interests include forensic photography, forensic chemistry, firearm analysis, and forensic science education.

# **Amie Houghton**

Amie Houghton is an Assistant Professor in the Forensic Science Program at Utah Valley University. She has an extensive background in crime scene investigation, analysis and reconstruction, which she obtained from over a decade of working in federal law enforcement. Amie currently serves as the director of the Forensic Investigation emphasis and Crime Scene House at UVU. She teaches Introduction to Forensic Science, Basic and Advanced Crime Scene Investigation Techniques, Forensic Photography, Forensic Pathology and Medicolegal Death Investigations.

# Mike King

Mike King's contribution to law enforcement has spanned more than three decades. His expertise in the investigation of violent crime is world-renowned.

At the federal level, King was asked to serve with 6 other selected law enforcement professionals from across the United States on the FBI's ViCAP (Violent Criminal Apprehension Program) National Advisory Board, reviewing policy and procedures. The board provided guidance and insight into the creation of a national database for missing persons, unidentified bodies and unsolved homicides. He served as the co-chair of the ViCAP National Board.

In his home state of Utah, King retired from the Department of Public Safety after a distinguished law enforcement career, including serving as Chief of Staff to Utah Attorney Jan Graham. He was the Director of UTAP (Utah Criminal Tracking and Analysis Program) and guided their mission to investigate and facilitate collaboration on unsolved homicides, sexual assaults and missing persons.

King has nearly 40 years of experience in public and private leadership positions with emphasis in marketing, consulting and business development. His experience includes police records management systems, crime analysis and geospatial solutions. King is an internationally recognized speaker and trainer, adjunct professor and visiting scholar at several accredited universities.

# Kathy Mackay

Kathy is the Cold Case Crime Analyst at the Utah Statewide Information & Analysis Center (SIAC). She started as the SIAC Cold Case Analyst in September 2018. Prior to working at the Utah SIAC Kathy had ten years of analytical experience working with the DEA (Drug Enforcement Agency) in Salt Lake City assisting with many historical drug and money laundering cases. She also worked wire cases involving Mexican Cartels that proved to be some of Utah DEA's biggest cases. Kathy's main duties at the SIAC are to oversee the new Utah Cold Case Database and assist all Law Enforcement with case support related to Cold Cases. Kathy is available to agencies in Utah to provide database training and entering cases into the new database, as well as, case support for cold, missing, and unidentified remains cases. She is also the contact person for the national database ViCAP (Violent Criminal Apprehension Program) which consists of arranging training and assisting with entering cases into the national database.

# **Heather Mills**

# Brandon F. Nabozny

Brandon is the owner and lead instructor at Forza Forensics, LLC, a forensic science training and consulting company based in Phoenix, Arizona. Brandon spent over eleven years as a forensic scientist at the Arizona Department of Public Safety Crime Lab, where he specialized in forensic chemistry, latent print analysis and forensic photography and crime scene investigation. He was supervisor over the state level Crime Scene Response Team and acted as lead crime scene analyst on countless major investigations throughout Arizona. Brandon's focus is now on forensic science and law enforcement education. He is a Faculty Associate at the School of Criminology and Criminal Justice at Arizona State University where he teaches courses in criminal investigations and forensic science. He is a member of the International Association for Identification, the Arizona Homicide Investigators Association and 1st Vice President of Arizona's IAI State Division, the Arizona Identification Council.

# Maria C. Pettolina, CSCSA

Maria has over a decade of forensic experience and has worked as an investigator and a supervisor in crime scene and property and evidence. She is currently employed as a forensic consultant in the State of Colorado. Maria is a doctoral candidate and is published in the field of forensics. For the past seven years, Maria has been the lead instructor for a forensics program at a university in Colorado. She has over 1200 hours of specialized forensic training and has been introduced as an expert in numerous criminal trials. She is a Certified Senior Crime Scene Analyst though the International Association of Identification.

### Elisha Sorum

Elisha Sorum is currently a Forensic Evidence Processing Technician in the Impression Evidence Section at the Henderson Police Department. She began her employment with the Henderson Police Department in 2014 as a Crime Scene Technician and moved into the laboratory in 2016. She began her forensics career in 2007 when she completed her first internship in the Impression Section of the Utah Bureau of Forensic Services. She completed two additional internships in Crime Scene Investigations with Weber-Metro CSI and the Salt Lake County Sheriff's Office. Her career as a Crime Scene Investigator officially began in 2009 with the Salt Lake County Sheriff's Office (currently known as the Unified Police Department of Greater Salt Lake). Throughout her career, she has had the opportunity to work both in the field and in the laboratory, being responsible for processing crime scenes, evidence recovery, and comparison of latent prints. Elisha received her Crime Scene Analyst Certification through the International Association for Identification (IAI) in 2012. She is an active member of both the IAI and the Nevada State Division of the International Association for Identification (NSDIAI) where she currently serves as the President of the association. Elisha has earned an Associate's degree in Chemistry, a Bachelor's degree in Forensic Science Investigations, and a Master's degree in Criminal Justice from Weber State University in Utah.

# **Bonnie Stewart**

Bonnie Stewart is a Forensic Document Examiner with over 15 years of experience. In 2004, she completed a two-year training while employed by Salt Lake City Police Department under the guidance of Forensic Document Examiner George Throckmorton. She has worked over 200 civil and criminal cases, and has testified in both District and Federal Courts on Forensic Document Examination. Bonnie is also a Certified Latent Print Examiner and is currently employed by the Utah Bureau of Forensic Services in the Latent Print Section. In addition, Bonnie is an adjunct instructor at Salt Lake Community College where she has taught Forensic Science classes for 11 years.

### Matt Throckmorton

Matt Throckmorton is a forensic document examiner of 23 years with 20 years working for Salt Lake City Police Department Crime Lab. He apprenticed under his father George Throckmorton and received training at the FBI Academy in Quantico, Virginia. He has worked more than 1100 cases for just about every law enforcement agency in the State of Utah and scores of civil law firms throughout the western United States. He has testified as an expert witness in District and Federal courts in both criminal and civil cases. He also regularly responds to crime scenes documenting, processing and collecting evidence for a variety of cases for Salt Lake City Police Dept. He is a collector and constant drinker of Mountain Dew (all flavors, all colors).

# Kent W. Timothy

Kent is currently employed in the Impression Evidence Unit of the City of Henderson Forensic Laboratory, an ISO 17025 Accredited lab. He is certified by the International Association For Identification as a Latent Print Examiner and as a Footwear and Tire Tread Examiner. He began forensic work and training when hired as a Police Officer in 1980 by the new West Valley City...before CSI was COOL. In 1997, Post-O.J., He was assigned to the first Crime Scene Unit in West Valley where he earned his IAI Certification as a Senior Crime Scene Analyst, and has been doing forensic work almost exclusively since then. Kent accepted his position with The City of Henderson, Nevada in 2004. He has had the opportunity to work and train with some of the best and most interesting people in forensics during his time doing the work from crime scene to courtroom. Doing "The Work" is so much more than just a paycheck...

### Edward William Wallace Jr.

Mr. Edward William Wallace Jr., served the NYPD for over 20 years and retired April of 2004. While with the NYPD Mr. Wallace performed various law enforcement duties including, Crime Scene Investigator and Counter Terrorism Investigator. Mr. Wallace held the coveted rank of Detective First Grade. Mr. Wallace spent 15 years in Crime Scene Investigations, investigating 2649 crimes scenes including both World Trade Center Attacks, the October 2001 Anthrax Attack, and has given testimony as a forensic expert in 393 trials. Mr. Wallace holds certifications in teaching, hazardous materials/weapons of mass destruction, fire Investigations, post blast investigations, crime scene investigations, and homeland security. Mr. Wallace has over 26 years of experience as an instructor and has performed numerous training lectures, nationally and internationally, on various forensic topics and WMD/Haz-Mat. During the anthrax attack of 2001, Mr. Wallace was assigned to the Bio-Terrorism Task Force, investigating the attacks. During his assignment, Mr. Wallace was tasked to design and build a Bio-Safety Level 3 Mobile Laboratory to support the use of a presumptive field identification of possible biological agents utilizing PCR DNA technology.

Upon his retirement from the NYPD, Mr. Wallace became the President of Finest Forensic Consultants, L.L.C., a company that provides expert consultations for forensics, crime scene Investigation, counter terrorism investigations, WMD/Haz-Mat incident investigations and training in these areas. He has also co-authored 2 text books on crime scene investigations. Currently Mr. Wallace is the Director of Forensic Training at the New York City Office of Chief Medical Examiner.

# Rachel H. Walton, ED.D

Experienced law enforcement professional; criminal investigator, criminal justice educator, textbook author, lecturer and consultant with over thirty years of service in law enforcement and investigation of major crimes. Internationally recognized for my specialized expertise in investigation of unresolved "cold case" homicides and long term missing persons." Author of first doctoral level dissertation and textbook to address "cold case" homicide investigation.

# Katrina Welker

# **Douglas Young**

Doug began his law enforcement career with the Gibson County Sheriff's Department in Southwestern Indiana. While working at the Sheriff's Office, Doug attended Vincennes University where he majored in Law Enforcement/Criminalistics, graduating Cum Laude. Always having an interest in Forensic Science, Doug began his training as a crime scene technician for the Gibson County Sheriff's Department and held that position from 1993 – 1998. In December of 1998, Doug moved to Texas and took a job with the Austin Texas Police Department as a Sr. Crime Scene Specialist. In November of 2002, Doug took the position of Chief of Police with the Oakland City Police Department in Indiana, where he served until May 2007. That same month, Doug moved to Thornton, Colorado where he took a position as a Crime Scene Investigator and in August 2009, Doug was promoted to Sr. Criminalist. Doug has lectured and taught courses in various forensic topics to include Crime Scene Investigation and Reconstruction, Forensic Entomology, Crime Scene Photography, Bloodstain Pattern Analysis, Shooting Incident Reconstruction and Latent Fingerprint Development, Recognition and Documentation. Doug has been qualified as an expert witness in both Federal and State Courts. Doug is a past President of both the Indiana and Rocky Mountain Division of the International Association for Identification and is still an active member of both the parent body IAI and the Rocky Mountain Division. Doug is a member of the Rocky Mountain Association of Bloodstain Pattern Analysts as well as a member of the Association for Crime Scene Reconstruction (ACSR) where he sits on the Board of Directors. Doug is the founder of the Colorado Forensic Investigators Group (COFIG) and owner of Triad Forensics LLC, a forensic training and consulting company located in Longmont, CO.