

STATE OF WISCONSIN : CIRCUIT COURT : MANITOWOC COUNTY

STATE OF WISCONSIN,)	
)	
Plaintiff,)	
)	Case No. 05-CF-381
v.)	
)	Honorable Judge Angela Sutkiewicz,
STEVEN A. AVERY,)	Judge Presiding
)	
Defendant.)	

AFFIDAVIT OF STUART H. JAMES

Now comes your affiant, **Stuart H. James**, and under oath hereby states as follows:

1. I am of legal majority and can truthfully and competently testify to the matters contained herein based upon my personal knowledge and to a reasonable degree of scientific certainty. The factual statements herein are true and correct to the best of my knowledge, information, and belief.
2. I am a forensic scientist and bloodstain pattern analyst with James and Associates Forensic Consultants, Inc. in Fort Lauderdale, Florida. A copy of my current CV is attached and incorporated herein as Exhibit A. All of the opinions expressed herein are expressed to a reasonable degree of certainty in the field of bloodstain analysis.
3. In my professional experience, it is extremely difficult to clean blood stains with heavy applications of bleach and paint thinner.
4. I have examined the following materials in the case of *State of Wisconsin v. Steven A. Avery*, Manitowoc County Case No. 05-CF-381, received from Attorney Kathleen T. Zellner:



- a. Photographs of RAV-4 vehicle
- b. Photographs of bone fragments
- c. Photographs of burn area behind garage
- d. Photographs of burn barrel contents
- e. Photograph of blood sample container
- f. Video and photographs of blood tube packaging
- g. Photographs of garage and contents
- h. Photograph of burned cell phone
- i. Photographs of blood stain on Steven Avery's bathroom floor
- j. Preliminary Hearing testimony of Forensic Anthropologist Dr. Leslie Eisenberg
- k. Trial testimony of Forensic Anthropologist Dr. Leslie Eisenberg
- l. Trial testimony of Forensic Scientist Nick Stahike (Bloodstain Pattern Analyst)
- m. Trial testimony of DNA Analyst Sherry Culhane (DNA Analyst)
- n. Closing argument of Defense Attorney Dean Strang
- o. Closing argument of Defense Attorney Jerry Buting
- p. Closing argument of Prosecutor Ken Kratz
- q. Reports of the Wisconsin State Crime Laboratory
 - i. DNA (11/14/05)
 - ii. DNA (12/5/05)
 - iii. DNA (3/31/16)
 - iv. DNA (5/8/06)
 - v. DNA (12/4/06)
 - vi. Field response (11/05/05)
 - vii. Field response (11/06/05)
 - viii. Bloodstain Pattern Analysis (1/31/06)
 - ix. Firearms report (2/21/06)
 - x. Firearms report (5/10/06)
 - xi. Trace evidence (2/27/06)
 - xii. Trace evidence (5/26/06)
 - xiii. Fingerprints (3/8/06)
 - xiv. Fingerprints (4/26/06)
- r. Two photographs of circled areas on cargo door
- s. Portion of plastic dashboard from RAV-4 vehicle
- t. Case communication record of Sherry Culhane
- u. Excerpt of testimony of John Ertl
- v. Case communication record
- w. Trial testimony of Kevin Heimerl
- x. Chapters from Ken Kratz's book, Avery: The Case Against Steven Avery and what "Making a Murderer" Gets Wrong, pertaining to blood

5. All opinions rendered in this affidavit are based on new bloodstain pattern recommended terminology. Specifically, the use of velocity as a determinative characteristic of

bloodstains was abandoned with the production of the Working Group on Bloodstain Pattern Analysis ("SWGSTAIN") terminology. Bloodstain analyst Nick Stahlke ("Stahlke") used velocity to define and interpret the bloodstain pattern observed on the rear cargo door of Ms. Halbach's RAV-4. TT:2/27:49.

OPINIONS REGARDING MR. AVERY'S GARAGE

6. I have reviewed the testimony of Kevin Heimerl ("Heimerl"), special agent with the Wisconsin Department of Justice Division of Criminal Investigation. Heimerl described there being no blood spatter in Mr. Avery's garage. TT:2/22:201.
7. I have reviewed the trial testimony of John Ertl ("Ertl"), field response technician for the Wisconsin State Crime Lab. Ertl testified that he had some experience as a bloodstain pattern analyst (TT:2/19:95-96) and that he saw no bloodstain patterns whatsoever in Mr. Avery's garage. TT:2/19:96-98.
8. To a reasonable degree of scientific certainty, the absence of bloodstain patterns from a gunshot, in Mr. Avery's garage is inconsistent with Ms. Halbach being shot in the head in that location.

OPINIONS REGARDING MR. AVERY'S TRAILER

9. Ertl also testified that he was asked to identify bloodstain patterns in Mr. Avery's residence. TT:2/19:36. Ertl found no evidence of bloodstain patterns in Mr. Avery's trailer. TT:2/19:37; 96-98: 143.
10. To a reasonable degree of scientific certainty, the absence of bloodstain patterns in Mr. Avery's trailer is inconsistent with a brutal attack occurring in that location. Further, the complete absence of Ms. Halbach's blood in Mr. Avery's trailer is inconsistent with her

being stabbed or otherwise having sustained a significant, blood-letting injury in Mr. Avery's trailer.

OPINIONS REGARDING MS. HALBACH'S RAV-4 — CARGO DOOR

11. SWGSTAIN defines impact pattern as follows: "A bloodstain pattern resulting from an object striking liquid blood." SWGSTAIN Recommended Terminology, attached and incorporated herein as Exhibit B.
12. SWGSTAIN defines cast-off pattern as follows: A bloodstain pattern resulting from blood drops released from a bloodied object in motion. SWGSTAIN Recommended Terminology, Exhibit B.
13. I have reviewed photos and video of the blood tube containing EDTA preserved whole blood sample of Steven Avery. It is my opinion that the appearance of the blood tube is consistent with a normal EDTA blood tube that has not been tampered with. The needle hole observable in the center of the purple stopper does not indicate the tube had been tampered with. In my experience with similar blood tubes, that hole is created with the blood sample is deposited in the blood tube at the time of its collection. It is my opinion that the apparent ring of dried blood observable under the stopper does not indicate that the blood had been tampered with.
14. I have reviewed the trial testimony of Stahlke, bloodstain pattern analyst for the Wisconsin State Crime Lab. It is my opinion that Stahlke incorrectly identified the bloodstain pattern on the interior of the cargo door of the RAV-4. Stahlke testified that this pattern was consistent with an impact pattern. TT:2/26:228: Photograph of bloodstain pattern on Ms. Halbach's RAV-4 cargo door. It is my opinion that this pattern

is consistent with a cast-off pattern, not an impact pattern.

15. Stahlke described impact stains as having been flung from a bloody object, which is actually characteristic of cast-off patterns, not impact patterns. TT:2/28:225-26
16. Stahlke expressed an incorrect opinion about the origin of the bloodstain pattern on the interior of the cargo door. He testified that it would be possible for the resulting stain to be produced as a result of a body with bloody hair being flung into the rear cargo area. TT:2/26:228-29.
17. The prosecutor, Ken Kratz ("Kratz"), argued that Ms. Halbach was thrown into the rear cargo area of the RAV-4 and that her blood was in motion when it struck the interior panel of the cargo door. TT:3/14:61.
18. The cargo door of the RAV-4 opens with hinges on the passenger side of the vehicle to create a ninety degree angle with the threshold of the cargo area, as depicted in the attached photograph of Ms. Halbach's RAV-4, attached as Exhibit C.
19. If the bloodstain pattern observed on the interior cargo door had been created when Ms. Halbach was thrown into the cargo area and while the cargo door was open it would likely produce elongated stains that indicate a right to left direction of travel relative to the cargo door. No such pattern was observed on the interior of the cargo door. In fact, Stahlke accurately described the bloodstains on the rear cargo door as being "circular or near-circular." TT:2/26:228.
20. Additionally, the blood spatter on the rear of the cargo door is concentrated on the bottom left corner. The bottom of the cargo door is 17 inches from the ground. The concentration of bloodstains in this area is not consistent with blood being deposited as a

result of Ms. Halbach's body being thrown into the rear cargo area.

21. It is difficult to distinguish the differences in shape of bloodstains with angles of impact from 60°-90°. If blood droplets impact a surface from an angle between 60°-90°, circular or near-circular stains are produced. Stahlke described the individual stains on the rear cargo door as being "circular or near circular." TT:2/26:228. See attached bloodstain comparison, Exhibit D.
22. The bloodstain pattern observed on the interior panel of the rear cargo door is inconsistent with a moving blood source, such as Kratz described. TT:3/15:99. The pattern on the rear cargo door is consistent with a stationary blood source being struck with a bloodied object and creating a cast-off pattern where the blood droplets have traveled from left to right relative to the rear of the vehicle and onto the open cargo door. I have directed experiments where similar cast-off patterns were created using a hammer swung at a low angle to deposit blood onto the rear cargo door of a 1999 RAV-4.
23. Through a series of experiments that I observed, I have determined that the bloodstain pattern observed on the interior of the cargo door was not deposited by a bloody body being flung into the cargo area.
24. For one experiment, a mannequin was obtained to reenact the scenario presented to the jury by the prosecution. Weights were attached to the mannequin to achieve a weight of approximately 135 pounds to replicate Ms. Halbach's body weight. A wig of human hair was obtained that was similar in length and style to Ms. Halbach's at the time of her death. Layers of blank white sheets of paper were attached to the interior of the rear cargo door to collect any blood spatter produced when the body was flung into the cargo

area. When a bloodstain pattern was created on the top sheet of paper, that layer was torn off to preserve the created pattern. After soaking the mannequin's hair with EDTA preserved blood, volunteers from Kathleen T. Zellner & Associates, P.C., lifted and tossed the mannequin into the cargo area of a 1999 Toyota RAV-4 that is owned by Ms. Zellner. The goal of the experiment was to reenact the prosecution's version of events, i.e., that the bloodstain pattern on the cargo door was created when Mr. Avery threw Ms. Halbach into the cargo area of her RAV-4. TT:2/26:228-29; TT:3/14:61. First, one volunteer¹ attempted to create a bloodstain pattern on the cargo door by flinging the mannequin, but he was not able to do so. Then, two volunteers threw the mannequin into the cargo area. They could not create a bloodstain pattern similar to what was observed on the rear cargo door of Ms. Halbach's vehicle. As part of this experiment, the mannequin's hands and feet were bound with rope in an effort to replicate the scenario described by Brendan Dassey in his confession. Excerpts from the 3/1/06 interview of Brendan Dassey, attached as Exhibit E. The addition of the rope had no effect on the experiment. After I concluded that no blood was being deposited on the cargo door when the mannequin was being thrown into the cargo area, the weights were removed from the mannequin to see what, if any, pattern was created when the weight of the mannequin was reduced to a fraction of Ms. Halbach's body weight. Without the added weight, the mannequin weighed approximately fifteen pounds. Even still, we were unable to create a bloodstain pattern that resembled the cast-off pattern observed on the interior of the cargo door.

¹ This volunteer was 5'10" tall, 185 pounds and 36 years old. At the time of Ms. Halbach's disappearance, Mr. Avery was 5'6" tall, 218 pounds, and 43 years old.

25. In another experiment that I observed, an attempt was made to recreate the bloodstain pattern observed on the interior cargo door of Ms. Halbach's RAV-4. The interior cargo door was lined with layers of blank white paper to collect any blood spatter created in the course of this experiment. After creating a bloodstain pattern on the top sheet of paper, that layer was torn off to preserve the created pattern. During this experiment, the cargo door of Ms. Zellner's 1999 RAV-4 was open. When completely open, the cargo door sits perpendicular to the threshold of the cargo area. A volunteer from Kathleen T. Zellner & Associates, P.C., created cast-off bloodstain patterns on the cargo door by wetting the head of a mason's hammer with EDTA preserved blood and swinging. Cast-off bloodstains are created when blood is flung from a bloodied object. To a reasonable degree of scientific certainty, the bloodstain pattern observed on the rear cargo door of Ms. Halbach's RAV-4 was a cast-off pattern created by a blunt instrument. This bloodstain was not consistent with a knife because the blood droplets cast off by the blade of a knife are usually smaller than those observed on the rear cargo door. This bloodstain was not consistent with a gunshot because droplets of blood resulting from a gunshot are smaller than those observed on the rear cargo door. The bloodstain patterns that were most similar to the pattern observed on Ms. Halbach's rear cargo door were consistent with when the victim's body was in a prone position on her back on the ground with her head near the driver's side of the rear bumper and the attacker was kneeling over her, striking her with a bloodied object, consistent with a hammer or mallet, while the rear cargo door was open. A bloodstain pattern was created that closely resembled the pattern on Ms. Halbach's cargo door, which was photographed and attached as Exhibit F.

26. To a reasonable degree of scientific certainty, it is my conclusion that the bloodstain pattern on the rear cargo door of Ms. Halbach's RAV-4 was not created in the manner described by the prosecution and their experts at Mr. Avery's trial.

OPINIONS REGARDING MS. HALBACH'S RAV-4 — IGNITION STAIN

27. Through a series of experiments that I observed, I have concluded to a reasonable degree of scientific certainty that the distribution of Mr. Avery's blood in various locations in the passenger compartment of the RAV-4 are not consistent with purposeful behavior. The prosecution told the jury that all of the blood deposited in the RAV-4 was from the cut on the middle finger of Mr. Avery's right hand and that he was actively bleeding.

TT:2/12:85. However, there was no blood on the door handle, key, gearshift, interior hood release, hood latch, hood prop, and battery cable.

28. It is my opinion that Mr. Avery's blood in the RAV-4 is consistent with being randomly distributed from a source because his blood is present in some locations but absent in some reasonably anticipated locations, such as those listed in ¶ 27. The absence of blood stains in these locations is inconsistent with an active bleeder.

29. The bloodstains belonging to Mr. Avery are consistent with an explanation other than Mr. Avery being in the RAV-4 and depositing his blood in those locations with his actively bleeding cut finger. Had Mr. Avery been actively bleeding in the RAV-4, it is my opinion that his blood and bloody fingerprints would have been deposited elsewhere in the vehicle.

30. One experiment that represented the purposeful application of blood was done using a pipette to drip blood onto the driver's and passenger seats, a CD case, the metal frame

surrounding the rear passenger door, between the driver's seat and center console. An applicator was used to create the stain near the ignition. I had previously attempted to recreate the ignition stain using fresh blood applied by an applicator on paper and a piece of plastic cut from the ignition area of a 1999 Toyota RAV-4. Photographs of the stains produced are attached to this affidavit as Exhibit G. For this experiment I used fresh blood to better represent the time it would take for blood shed by Mr. Avery in his bathroom sink to coagulate and dry. Blood was drawn from a volunteer and was deposited on the bathroom sink from Mr. Avery's residence.² The blood dried on the sink for approximately thirty minutes. Dried flakes of blood were then lifted from the sink using a scalpel.

31. More fresh blood was drawn from the volunteer and deposited into the basin and rim of the sink. Using a pipette, blood was taken from the sink and transported to Ms. Zellner's 1999 RAV-4. Blood was then dripped on the driver's seat, the passenger's seat, between the driver's seat and center console, on a CD case sitting on the passenger seat, and on the door jamb of the rear passenger door. An applicator was used to recreate the stain near the ignition. Depositing blood in this manner and at these locations took less than three minutes. Blood was also dripped onto the carpet of Ms. Zellner's RAV-4 between the driver's seat and the center console. The fresh blood absorbed into the carpet and did not form flakes.

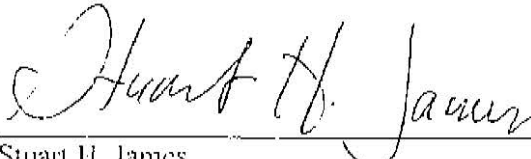
32. To a reasonable degree of scientific certainty, the bloodstains attributable to Mr. Avery that were observed in Ms. Halbach's RAV-4 can be classified as follows:

² Mr. Avery's sink had been removed from his residence and brought to Ms. Zellner's office.

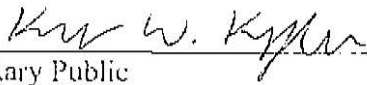
- a. Passive drop on driver's seat;
- b. Passive drop on passenger seat;
- c. Passive drops on CD case;
- d. Passive drop with flow pattern on passenger door jamb; and
- e. Stain produced with an applicator near the ignition.

33. The stain near the ignition of Ms. Halbach's RAV-4 was approximately 2.25 inches from the ignition. Evidence photos of ignition and blood stain, attached as Exhibit H. To a reasonable degree of scientific certainty, Mr. Avery would not have deposited blood at that location with his right middle finger while turning the key in the ignition.³

FURTHER AFFLIANT SAYETH NAUGHT


Stuart H. James

Subscribed and sworn before me
this 3rd day of May, 2017.


Notary Public



³ From looking at photographs of Ms. Halbach's RAV-4, Ms. Zellner's RAV-4 has similar upholstery fabric on the seats. The steering wheel, gear shift, dashboard, and console are likely made of the same material.

***James and Associates
Forensic Consultants, Inc.***

**1821 NW 36th Street
Fort Lauderdale, Florida 33309**

**Tel:
954-485-5904**

**E-Mail:
jamesforen@aol.com**

**CURRICULUM VITAE
FOR
STUART H. JAMES**

PERSONAL DATA

DATE OF BIRTH: January 12, 1941 PLACE OF BIRTH: New York City, NY

CURRENT OCCUPATION

**Forensic Scientist in Civil and Criminal Cases with James and Associates Forensic
Consultants, Inc., Fort Lauderdale, Florida**

PROFESSIONAL SERVICES IN FORENSIC SCIENCES

Death Investigation and Crime Scene Reconstruction

Physical Evidence Examination and Photography

Bloodstain Pattern Analysis

Accelerant Detection in Fire Investigation

Forensic Toxicology Consultation



ACADEMIC PROFILE

INSTITUTION	COURSES/DEGREE	YEAR
University of Arizona Tucson, Arizona	Biology/Mammalogy	1961
Hobart College Geneva, New York	BA Biology/Chemistry	1962
St. Mary's Hospital Tucson, Arizona	Medical Technology M.T. (ASCP)	1963
Elmira College Graduate School Elmira, New York	Physical Significance of Bloodstain Evidence	1977
	Homicide Investigation	1979
	Forensic Microscopy	1979

CONTINUING EDUCATION AND TRAINING IN FORENSIC SCIENCE

INSTITUTION	COURSE	YEAR
United States Department of Justice Drug Enforcement Administration National Training Institute McLean, Virginia	Forensic Chemistry 40 Hours	1973
Allegheny County Police Academy Pittsburgh, Pennsylvania	Forensic Science Death Investigation 40 Hours	1974
Forensic Sciences Foundation National District Attorney's Assoc. Snowmass, Colorado	Forensic Science Death Investigation 40 Hours	1979
Post Graduate School of Medicine New York University New York, New York	Forensic Science Death Investigation 40 Hours	1980

New York State Fire Academy Montour Falls, New York	Fire and Arson Investigation 24 Hours	1982
Advanced Bloodstain Institute Laboratory of Forensic Science Corning, New York	Bloodstain Pattern Analysis 40 Hours	1983
Colby College Waterville, Maine	Forensic Science Death Investigation 40 Hours	1984
John Jay College of Criminal Justice New York, New York	Bloodstain Pattern Analysis 8 Hours	1985
Advanced Bloodstain Institute Laboratory of Forensic Science Corning, New York	Bloodstain Pattern Analysis 40 Hours	1985
Colby College Waterville, Maine	Forensic Science Death Investigation 40 Hours	1986
Advanced Bloodstain Institute Laboratory of Forensic Science Corning, New York	Bloodstain Pattern Analysis 40 Hours	1987
Annual Conference International Association of Bloodstain Pattern Analysts Denver, Colorado	Bloodstain Pattern Analysis 20 Hours	1988
Annual Conference International Association of Bloodstain Pattern Analysts Dallas, Texas	Bloodstain Pattern Analysis 20 Hours	1989
Annual Conference International Association of Bloodstain Pattern Analysts Reno, Nevada	Bloodstain Pattern Analysis 20 Hours	1990

Annual Conference International Association of Bloodstain Pattern Analysts North Miami Beach, Florida	Bloodstain Pattern Analysis 12 Hours	1994
Annual Conference Laboratory of Forensic Science Corning, New York	Bloodstain Pattern Analysis 40 hours	1997
Advanced Bloodstain Pattern Analysis 1998 Arnold Markle Symposium University of New Haven and the Henry C. Lee Institute of Forensic Science. Mashantucket, Connecticut	Bloodstain Pattern Analysis 16 Hours	1998
Annual Conference International Association of Bloodstain Pattern Analysts Tucson, Arizona	Bloodstain Pattern Analysis 20 Hours	2000
Annual Conference International Association of Bloodstain Pattern Analysts Tucson, Arizona	Bloodstain Pattern Analysis 20 Hours	2001
Annual Conference International Association of Bloodstain Pattern Analysts Harrisburg, Pennsylvania	Bloodstain Pattern Analysis 20 Hours	2002
Annual Conference International Association of Bloodstain Pattern Analysts Odessa, Texas	Bloodstain Pattern Analysis 20 Hours	2003
Annual Conference International Association of Bloodstain Pattern Analysts Tucson, Arizona	Bloodstain Pattern Analysis 20 Hours	2004

Annual Conference International Association of Bloodstain Pattern Analysts Santa Barbara, California	Bloodstain Pattern Analysis 20 Hours	2005
Annual Conference International Association of Bloodstain Pattern Analysts Corning, New York	Bloodstain Pattern Analysis 20 Hours	2006
Annual Conference International Association of Bloodstain Pattern Analysts San Antonio, Texas	Bloodstain Pattern Analysis 20 Hours	2007
Medicolegal Investigation of Death Sponsored by Wayne State University School of Medicine Las Vegas, Nevada	Death Investigation 24 Hours	2007
Annual Conference International Association of Bloodstain Pattern Analysts Boulder, Colorado	Bloodstain Pattern Analysis 20 Hours	2008
Bloodstain Pattern Symposium Midwest Forensics Resource Center Ames, Iowa	Bloodstain Pattern 24 Hours	2009
Annual Conference International Association of Bloodstain Pattern Analysts Portland, Oregon	Bloodstain Pattern Analysis 20 Hours	2009
Bloodstain Pattern Symposium Midwest Forensics Resource Center Ames, Iowa	Bloodstain Pattern 24 Hours	2010
Annual Conference International Association of Bloodstain Pattern Analysts Atlantic City, New Jersey	Bloodstain Pattern Analysis 20 Hours	2010

Annual Conference
International Association of
Bloodstain Pattern Analysts
Milwaukee, Wisconsin

Bloodstain Pattern
Analysis
20 Hours

2011

PROFESSIONAL EMPLOYMENT AND EXPERIENCE

LOCATION	POSITION	YEARS
Bio-Science Laboratories Los Angeles, California	Clinical Chemist	1963-1965
Department of Pathology Memorial Hospital Culver City, California	Medical Technologist	1964-1965
Department of Pathology Mercy Medical Center Orlando, Florida	Chief Technologist Autopsy Assistant	1965-1967
Department of Pathology Boca Raton Community Hospital Boca Raton, Florida	Chief Chemist Blood Bank Supervisor	1967-1968
Department of Pathology St. Francis Hospital Wichita, Kansas	Teaching Supervisor Autopsy Assistant	1968-1969
Department of Pathology Wilson Memorial Hospital Johnson City, New York	Chief Toxicologist	1969-1975
Department of Psychology State University of New York Binghamton, New York	Research Associate Forensic Scientist	1975-1977
Department of Pathology Binghamton General Hospital Binghamton, New York	Supervisor of Forensic Laboratory	1977-1981

Binghamton, New York	Private Consultant in Forensic Science	1981-1988
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FORMAL TEACHING EXPERIENCE

INSTITUTION	COURSE	YEARS
State University of New York Binghamton, New York	Toxicology of Drugs and Alcohol	1972-1975
State University of New York Binghamton, New York	Applications of Forensic Toxicology	1973-1975
State University of New York Binghamton, New York	Death Investigation Physical Evidence Forensic Toxicology	1975-1982
Broome Community College Binghamton, New York	Pharmacology of Drugs and Alcohol	1978
Advanced School Law Enforcement Academy Binghamton, New York	Death Investigation Physical Evidence Forensic Toxicology	1981
Department of Law Enforcement Training Academy Springfield, Illinois	Basic Bloodstain Pattern Analysis	1981
Bloodstain Institute Elmira College Elmira, New York	Basic Bloodstain Pattern Analysis	1981
State University of New York Binghamton, New York	Forensic Science Extern Program	1983-1984
Broome Community College Binghamton, New York	Homicide Investigation	1984
Broome Community College Binghamton, New York	Homicide Investigation	1986

Basic Recruit School Law Enforcement Academy Binghamton, New York	Death Investigation Crime Scene Reconstruction	1986
Vestal Senior High School Vestal, New York	Visiting Lecturer in Forensic Science	1984-1988
Corning Community College Corning, New York	Visiting Lecturer in Forensic Science	1987-1988
Tampa Police Academy Tampa, Florida	Basic Bloodstain Pattern Analysis	1990
Oakland County Sheriff's Department Pontiac, Michigan	Basic Bloodstain Pattern Analysis	1990
Southern Police Institute University of Louisville Louisville, Kentucky	Bloodstain Pattern Analysis	1993
Institute of Police Technology and Management University of North Florida Tampa, Florida	Bloodstain Pattern Analysis	1993
Law Enforcement Training Systems Palm Beach Community College West Palm Beach, Florida	Crime Scene Processing, Collection and Preservation of Evidence. Bloodstain Pattern Analysis	1994
Criminal Justice Institute St. Petersburg Jr. College St. Petersburg, Florida	Bloodstain Pattern Analysis	1995
Criminal Justice Department Fox Valley Technical College Appleton, Wisconsin	Bloodstain Pattern Analysis Course	1998
Criminal Justice Department Troy State University Troy, Alabama	Forensic Science Summer Internship Program	2000

Henry C. Lee Institute of Forensic Science University of New Haven West Haven, Connecticut	Geometric Interpretation of Human Bloodstain Patterns	2001
Centre of Forensic Sciences Toronto, Ontario Canada	Basic Bloodstain Pattern Analysis for Forensic Scientists I	2001
Centre of Forensic Sciences Toronto, Ontario Canada	Basic Bloodstain Pattern Analysis for Forensic Scientists II	2001
Politie LSOP Institute for Criminal Investigation and Crime Science Zutphen, The Netherlands	Basic Bloodstain Pattern Analysis Course	2001
Politie LSOP Institute for Criminal Investigation and Crime Science Zutphen, The Netherlands	Advanced Bloodstain Pattern Analysis Course	2001
Politie LSOP Institute for Criminal Investigation and Crime Science Zutphen, The Netherlands	Advanced Bloodstain Pattern Analysis Course	2001
Criminal Justice Department Fox Valley Technical College Appleton, Wisconsin	Basic Bloodstain Pattern Analysis Course	2001
Mid-Atlantic Association of Forensic Scientists Fall Workshop Baltimore, Maryland	Bloodstain Analysis Crime Scene to Bench Work	2002
Criminal Justice Department Fox Valley Technical College Appleton, Wisconsin	Basic Bloodstain Pattern Analysis Course	2002
University of Newcastle upon Tyne Newcastle upon Tyne England, UK	Advanced Bloodstain Pattern Analysis Course	2003
Suffolk University Boston, Massachusetts	Advanced Bloodstain Pattern Analysis Course	2004

Florida Atlantic University Boca Raton, Florida	Intern Program	2004 2005
Redmond Police Department Redmond, Oregon	Basic Bloodstain Pattern Analysis Course	2005
Pennsylvania State Police Harrisburg, Pennsylvania	Advanced Bloodstain Pattern Analysis Course	2005
Metropolitan Police London, England	Basic Bloodstain Pattern Analysis Course	2005
Austin Police Department Austin, Texas	Basic Bloodstain Pattern Analysis Course	2005
Tombull Police Department Tombull, Texas	Advanced Bloodstain Pattern Analysis Course	2006
Western Australia Police Academy Perth, Western Australia	Advanced Bloodstain Pattern Analysis Course	2006
Metropolitan Police London, England	Advanced Bloodstain Pattern Analysis Course	2006
San Diego County Sheriff's Department San Diego, California	Advanced Bloodstain Pattern Course	2006
Des Moines Police Department Des Moines, Iowa	Basic Bloodstain Pattern Analysis Course	2007
Douglas County Sheriff's Office Omaha, Nebraska	Basic Bloodstain Pattern Analysis Course	2007
University of South Florida Tampa, Florida	Basic Bloodstain Pattern Analysis Course	2008
Elmira College Elmira, New York	Advanced Bloodstain Pattern Course	2008
Metropolitan Police London, England	Basic Bloodstain Pattern Analysis Course	2008

Elmira College
Elmira, New York

Advanced Bloodstain Pattern
Course

2009

Metropolitan Police
London, England

Advanced Bloodstain Pattern
Analysis Course

2009

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

The American Academy of Forensic Sciences. Fellow -Toxicology Section.

The International Association of Bloodstain Pattern Analysts.
Distinguished Member.

PROFESSIONAL ACTIVITIES

Board Member of the Broome County, New York Drug Awareness Center. 1970-1980.

Board Member of the State University of New York at Binghamton Drug Council, 1971-1979.

Exhibitor in the Scientific Section at the American Medical Association Conference, New York, New York, 1973.

Exhibitor in the Scientific Section at the American Academy of Pediatrics, Chicago, Illinois, 1973.

Medical Volunteer and Toxicologist in the Medical Facility at the Watkins Glen, New York Rock Concert, 1973.

Medical Volunteer and Toxicologist in the Medical Facility at the Peter Frampton Rock Concert at JFK Stadium in Philadelphia, Pennsylvania, 1975.

Member of the HEW Committee for Medical Care at Large Youth Gatherings in Washington, D.C., 1973.

Consultant to the Southern Tier of New York State Regional Criminal Justice Planning Board, Binghamton, New York, 1975-1981

Member of the New York State Crime Laboratory Advisory Board, 1975-1981.

Member of the Board of Editors of the American Journal of Forensic Medicine and Pathology, 1988 - 1991.

Consulting Bloodstain Analyst to the Florida Department of Law Enforcement, Tallahassee, Florida, 1990-1997.

Participant in Forensic Science Mentor Program for the American Academy of Forensic Sciences 1998-1999.

Member of the Forensic Science Review Board for CRC Press, LLC, Boca Raton, Florida 1999-present

Member of the Scientific Working Group for Bloodstain Pattern Analysis (SWGSTAIN) sponsored by the FBI, Quantico, Virginia, 2002-present.

Member of the Daubert Committee for the International Association of Bloodstain Pattern Analysts, 2003-present.

Editor of the International Association of Bloodstain Pattern Analysts News, 2004-2010

Editor of the Journal of Bloodstain Pattern Analysis, 2011- present.

LICENSES – CERTIFICATIONS - AWARDS

Licensed as Medical Technologist with the American Society of Clinical Pathologists Board of Registry.

Licensed as Legal Blood Alcohol Analyst for the State of New York, 1973-1981.

Appointed as Special Deputy Sheriff in Broome County, New York, 1981-1988.

Certified as Competent Forensic Expert in the Discipline of Bloodstain Pattern Interpretation by the Institute on the Physical Significance of Human Bloodstain Evidence, a division of the Laboratory of Forensic Science in Corning, New York in 1997.

Elected a Distinguished Member of the International Association of Bloodstain Pattern Analysts, 2004.

INTERNATIONAL EXPERIENCE IN THE FORENSIC SCIENCES

In conjunction with the International Consortium for Education and Florida Atlantic University at Boca Raton, Florida, Forensic Science was studied in Italy, Germany, France, and England during the summer of 1978. Institutions visited included local Police Departments, Police Training Centers, Medical Examiner Offices, and Forensic Laboratories in each country. These studies and information exchanges included visits to the Landeskriminalamp in Munich, Germany, Interpol in St. Cloud, France, the Home Office Research Establishment in Aldermaston, England, and the Metropolitan Police Laboratory in London, England.

FORMAL SCIENTIFIC PRESENTATIONS

DRUG ABUSE ANALYSIS IN THE CLINICAL LABORATORY: Presented at the New York State Medical Technology Seminar in Binghamton, New York. 10/71.

STREET DRUG ANALYSIS: Presented at the American Academy of Forensic Sciences National Meeting in Las Vegas, Nevada. 02/73.

WATKINS GLEN - A TOXICOLOGICAL ADVENTURE: Presented at the Interim Meeting of the Toxicology Section of the American Academy of Forensic Sciences in Philadelphia, Pennsylvania. 10/73.

EMERGENCY TOXICOLOGY IN THE FIELD: Presented at the American Academy of Forensic Sciences National Meeting in Dallas, Texas. 02/74.

UNUSUAL REQUESTS OF THE TOXICOLOGY LABORATORY: Presented at the Upstate, New York Section of the American Association of Clinical Chemists in Rochester, New York. 06/75.

FORENSIC INVESTIGATION OF CLANDESTINE LABORATORIES: Presented at the American Academy of Forensic Sciences National Meeting in San Diego, California. 02/77.

DRUG RELATED DEATH: Presented at Death Investigation Seminar at Broome Community College, Binghamton, New York. 06/78.

PHYSICAL EVIDENCE IN HOMICIDE INVESTIGATION: Presented at the Forensic Sciences Seminar, Tioga County Sheriff's Department, Owego, New York. 05/79.

MEDICAL-LEGAL ASPECTS OF DRUGS: Presented at the Ohio Drug Studies Institute, Columbus, Ohio. 06/79.

MEDICAL-LEGAL ASPECTS OF DRUGS: Presented at the Ohio Drug Studies Institute, Columbus, Ohio. 06/80.

PHYSICAL EVIDENCE IN HOMICIDE INVESTIGATION: Presented at the Forensic Science Seminar, Tioga County Sheriffs Department, Owego, New York. 10/80.

FORENSIC ASPECTS OF FIRE DEATHS AND COLLECTION OF PHYSICAL EVIDENCE AT FIRE SCENES: Presented at Arson Awareness and Recognition Seminar, Cayuga Community College, Auburn, New York. 04/81.

PHARMACOLOGY OF DRUGS AND ALCOHOL: Presented at the Ohio Drug Studies Institute, Columbus, Ohio. 06/81

PHARMACOLOGY OF DRUGS AND ALCOHOL: Presented at the Summer Drug Institute for Schools, Youth, and Substance Abuse, Wyoming Seminary School, Kingston, Pennsylvania. 06/81.

PRINCIPLES OF BREATH TESTING DEVICES FOR ALCOHOL: Presented at the Broome County Bar Association Educational Seminar in Binghamton, New York. 10/81.

INTERPRETATION OF BLOODSTAIN EVIDENCE: Presented at Security Officers Seminar, Owego, New York. 11/81.

SKULL SESSION - FACIAL RESTORATION: Presented at the International Association for Identification Conference in Rochester, New York. 07/82.

BLOODSTAIN EVIDENCE IN GUNSHOT WOUNDS AND TRAUMA CAUSED BY ACTS OF VIOLENCE: Presented at the Empire Nine EMT Regional Training Center, Canandaigua, New York. 11/82.

MEASUREMENT OF ALCOHOL IN BLOOD AND BREATH IN DRIVING WHILE INTOXICATED CASES: Presented at Seminar for Tioga County Law Enforcement Agencies in Owego, New York. 11/82.

BLOODSTAIN EVIDENCE IN HOMICIDE INVESTIGATION: Presented at the Peter Vallas Forensic Science in Fire and Death Investigation Seminar, Saddlebrook, New Jersey. 03/83.

BLOODSTAIN EVIDENCE IN UNUSUAL HOMICIDES: Presented at the Western Conference on Criminal and Civil Problems in Wichita, Kansas. 05/85.

FORENSIC SCIENCE AND DEATH INVESTIGATION: Presented at Law Day Seminar at Binghamton Senior High School, Binghamton, New York. 05/85.

FORENSIC SCIENCE AND DEATH INVESTIGATION: Presented at Law Day Seminar at Binghamton Senior High School, Binghamton, New York 05/86.

PHYSICAL EVIDENCE IN ACCIDENT RECONSTRUCTION: Presented at the Broome County Bar Association Educational Seminar, Binghamton, New York. 05/86.

CRIME SCENE RECONSTRUCTION: Presented at the First Annual Forensic and Investigator Forum of the New York State Defenders Association, Utica, New York. 05/87.

PHYSICAL EVIDENCE IN VEHICULAR ACCIDENTS: Presented at the Peter Vallas Forensic Science in Fire and Death Investigation, Hasbrouck Heights, New Jersey. 06/87.

BLOODSTAIN PATTERN INTERPRETATION: Presented at the Twin Meetings of the Pan American Association of Forensic Sciences and the First World Meeting of Police Surgeons and Medical Officers, Wichita, Kansas. 08/87.

TECHNIQUES OF HOMICIDE CASE PREPARATION: Presented at the Fall Meeting of the International Association of Identification, Oriskany, New York, 10/87.

ACCELERENT IDENTIFICATION IN FIRE INVESTIGATIONS: Presented at the Peter Vallas Associates, Inc. Seminar, Fort Lauderdale, Florida, 01/88.

BLOODSTAIN PATTERN INTERPRETATION AT SCENES OF VIOLENT CRIMES: Presented as full day seminar for Evidence Technician Training School at Harrisburg Area Community College, Harrisburg, Pennsylvania, 02/88

BLOODSTAIN PATTERN INTERPRETATION AND CRIME SCENE RECONSTRUCTION: Presented as a five hour seminar for the Summer Training Program of the Office of the State of Vermont Defender General at Lyndon State College, Lyndonville, Vermont, 06/88.

BLOOD EVIDENCE AT CRIME SCENES: Presented at the National Conference on Death and Injury Investigation sponsored by INFORM and the Milton Helpern Center of Wichita State University in Wichita, Kansas, 12/89.

INTERPRETATION OF BLOODSTAIN EVIDENCE AT CRIME SCENES: Presented at the Conference on Death Investigation sponsored by the Jefferson Parish Coroner's Office in Harahan, Louisiana, 04/90.

BLOOD EVIDENCE AT CRIME SCENES: Presented at the Mini-Western Conference on Crime Scene, Injury and Death Investigation sponsored by the Criminal Justice Department at Garden City Community College in Garden City, Kansas, 05/90.

BLOODSTAIN EVIDENCE AT CRIME SCENES: Presented at the Death Investigation Seminar sponsored by the Pennsylvania State Coroner's Association in Carlisle, Pennsylvania, 09/91.

CRIME SCENE WORKSHOP: Presented at Nova Southeastern University Law School in Fort Lauderdale, Florida, 01/92

CASE STUDIES IN BLOODSTAIN EVIDENCE: Presented at the Broward Forensic Association Meeting, Boca Raton, Florida, 03/92.

CRIME SCENE WORKSHOP: Presented at Nova Southeastern University Law School in Fort Lauderdale, Florida, 06/92.

CRIME SCENE RECONSTRUCTION: Presented at the Florida Homicide Investigator's Association (FHIA) Fifth Annual Conference, North Redington Beach, Florida, 11/92.

CRIME SCENE WORKSHOP: Presented at Nova Southeastern University Law School in Fort Lauderdale, Florida, 02/93.

BLOODSTAIN INTERPRETATION: Presented at the Dade County Public Defender's Office in Miami, Florida, 08/94.

BLOODSTAIN INTERPRETATION: Presented at the National Defender Investigator Association Annual Conference in Fort Lauderdale, Florida, 10/94.

CRIME SCENE WORKSHOP: Presented at Nova Southeastern University Law School in Fort Lauderdale, Florida, 02/95.

CRIME SCENE DEMONSTRATION AND MOCK TRIAL: Presented at Nova Southeastern Law School in Fort Lauderdale, Florida, 11/95

CRIME SCENE WORKSHOP: Presented at Nova Southeastern University Law School in Fort Lauderdale, Florida, 01/96.

BLOODSTAIN EVIDENCE: Presented at the Bergen County Bar Association Continuing Education Program in Hackensack, New Jersey, 04/96

CRIME SCENE WORKSHOP: Presented at Nova Southeastern University Law School in Fort Lauderdale, Florida, 01/97.

CRIME SCENE INVESTIGATION: Presented at the University of Miami School of Law in Coral Gables, Florida, 02/97.

BLOODSTAIN INTERPRETATION: Presented at the Broward County Public Defenders Office in Fort Lauderdale, Florida, 05/97.

DEATH INVESTIGATION: Presented at the Dade/Broward Regional Meeting of the Florida Association of Licensed Investigators in Hollywood, Florida, 05/97.

CRIME SCENE WORKSHOP: Presented at the Licensed Private Investigators 10th Anniversary Convention and National Association of Licensed Investigators Region IV Seminar in New Orleans, Louisiana, 09/97.

BLOODSTAIN PATTERN EVIDENCE VERSUS DEFENDANT'S STATEMENT (FACT OR FICTION): Presented at the 1998 Arnold Markle Symposium on Advanced Bloodstain Pattern Analysis in Mashantucket, Connecticut, 03/98

PROBLEMS IN FORENSIC SCIENCE - A SCIENTIFIC AND LEGAL PERSPECTIVE OF BLOODSTAIN PATTERN INTERPRETATION: Presented at the Utah Association of Criminal Defense Lawyers Seminar in Salt Lake City, Utah, 03/98

CRIME SCENE ISSUES: Presented at the Hialeah Gardens Police Department in Hialeah Gardens, Florida, 04/98.

PRACTICAL BLOODSTAIN PATTERN RECOGNITION: Presented at the Pennsylvania Coroner's Association Continuing Education Seminar in Moosic, Pennsylvania, 05/98.

BASIC BLOODSTAIN PATTERN INTERPRETATION: Presented at the Office of the Public Defender in Kansas City, Missouri, 08/98.

FORENSIC SCIENCE AND BLOODSTAIN PATTERN EVIDENCE: Presented at the Palm Beach County Public Defender's Office in West Palm Beach, Florida, 09/98.

USE AND UNDERSTANDING OF FORENSIC EVIDENCE: Presented at the Southern District of Florida Federal Public Defender's and Criminal Justice Act Representation Conference in Duck Key, Florida, 09/98.

21 YEARS, 4 MONTHS AND 20 DAYS (COMMONWEALTH OF PENNSYLVANIA v. DR. STEPHEN SCHER): Presented with Herbert Leon MacDonell at the American Academy of Forensic Sciences National Meeting in Orlando, Florida, 02/99.

CIVIL AND CRIMINAL FORENSIC DEATH INVESTIGATION: Presented at the 1999 Northeast Super Conference for the National Association of Licensed Investigators in Atlantic City, New Jersey, 03/99.

BLOODSTAIN PATTERN EVIDENCE VERSUS DEFENDANT'S STATEMENT (FACT OR FICTION): Presented at the Pathology Resident Seminar at the University of Tennessee School of Medicine in Memphis, Tennessee, 05/99.

BLOODSTAIN EVIDENCE IN THE CASE OF THE COMMONWEALTH OF PENNSYLVANIA V. DR STEPHEN SCHER): Presented at the Palm Beach County Criminal Defense Lawyers Seminar in West Palm Beach, Florida, 06/99.

FORENSIC SCIENCE AND BLOODSTAIN PATTERN EVIDENCE: Presented at the Louisiana Crisis Assistance Center in New Orleans, Louisiana, 08/99.

BLOODSTAIN PATTERNS AT THE CRIME SCENE - WHAT IT ALL MEANS: Presented at the South Florida Forensic Association Training Seminar at the Fort Lauderdale Police Department in Fort Lauderdale, Florida, 11/99.

FORENSIC SCIENCE CASE STUDIES: Presented at the Forensics and the Law Course at the University of Washington in Seattle, Washington, 12/99.

BASIC BLOODSTAIN PATTERN INTERPRETATION: Presented at the Missouri State Public Defenders Trial Skills Workshop 2000 in Lake Ozark, Missouri, 01/00.

FORENSIC SCIENCE AND VIOLENT DEATH - AN OVERVIEW OF PRACTICAL ISSUES AND PITFALLS: Presented at the 2000 Northeast Super Conference for the National Association of Licensed Investigators in Atlantic City, New Jersey, 03/00.

UTILIZING THE FORENSIC NURSE FOR CASE PREPARATION: Presented at the Dade County Public Defender's Office in Miami, Florida, 04/00.

PRACTICAL BLOODSTAIN RECOGNITION SEMINAR: Presented at Martin Investigations, Palm Beach Gardens, Florida, 08/00.

BLOOD SPATTER EVIDENCE: Presented at the Louisiana Association of Criminal Defense Lawyers Capital Defense Seminar in Baton Rouge, Louisiana, 09/00.

BLOODSTAIN PATTERN ANALYSIS - THE BASICS: Presented at the American Criminal Justice Association (Lambda Alpha Epsilon) Region IV Conference of the Millennium in New Haven, Connecticut, 10/00.

BLOODSTAIN PATTERN WORKSHOP: Presented at the Henry C. Lee Forensic Science Institute, University of New Haven, West Haven, Connecticut, 10/00.

BLOODSTAIN PATTERN INTERPRETATION: Presented at the National Seminar on Forensic Evidence and the Criminal Law sponsored by the Federal Defender Training Group, Philadelphia, Pennsylvania, 11/00.

BLOODSTAIN PATTERN EVIDENCE: Presented at the Forensics and the Law Course at the University of Washington in Seattle, Washington, 12/00.

FORENSIC SCIENCE IN DEATH INVESTIGATION: Presented at the 35th Annual Educational Conference of the Wisconsin Association of Identification in Kenosha, Wisconsin, 03/01.

WALKING THE CRIME SCENE - DEAD MEN DO TELL TALES: Presented at the National Association of Criminal Defense Lawyers Annual Meeting and Seminar in Minneapolis, Minnesota, 08/01.

BLOOD ON THE CARPET – MORE THAN A STAIN: Presented at the 2001 Annual Conference of the Federal Defenders of Eastern Washington and Idaho in Boise, Idaho, 08/01.

BLOOD SPATTER EVIDENCE: Presented at the Training Seminar for the King County Associated Counsel for the Accused, Seattle, Washington. 03/02.

BLOODSTAIN PATTERN INTERPRETATION: Presented at the Second National Seminar on Forensic Evidence and the Criminal Law sponsored by the Federal Defender Training Group, New Orleans, Louisiana, 04/02.

CASE STUDIES IN BLOODSTAIN PATTERN INTERPRETATION: Presented at the Bloodstain Pattern Analysis and Violent Crimes Course at the University of New Orleans, New Orleans, Louisiana. 08/02

WHAT IS THIS FORENSIC THING? Presented at the Florida Public Defender Association Winter Conference, St. Petersburg Beach, Florida. 12/02.

INTERPRETATION OF BLOODSTAIN EVIDENCE: Presented at the National Defender Investigator Association National Conference and Seminar, Fort Lauderdale, Florida. 04/03.

PRACTICAL BLOODSTAIN RECOGNITION AND INTERPRETATION: Presented at Forensic Science Symposium-2004, Nova Southeastern University, Fort Lauderdale, Florida. 02/04.

RECOGNITION OF BLOODSTAIN PATTERNS - ISSUES AND PITFALLS: Presented at the Idaho Association of Criminal Defense Lawyers Winter Seminar, Sun Valley, Idaho, 03/04.

CRIME AND DEATH SCENE RECONSTRUCTION UTILIZING BLOODSTAIN PATTERN ANALYSIS: Presented at the Nebraska Institute of Forensic Science, Lincoln, Nebraska, 03/04.

BLOODSTAIN PATTERN CASE STUDIES: Presented at Basic Bloodstain Pattern Analysis Course in Corning, New York. 05/04

PRACTICAL BLOODSTAIN RECOGNITION AND INTERPRETATION: Presented at Forensic Science Symposium, Nova Southeastern University, Fort Lauderdale, Florida. 02/05.

BASIC BLOODSTAIN PATTERN RECOGNITION: Presented at the 1st Annual Homicide Conference sponsored by the Palm Beach County Sheriff's Office in Boca Raton, Florida. 12/05

THE SIGNIFICANCE OF LIMITED QUANTITIES OF IMPACT SPATTER ASSOCIATED WITH BEATING SCENES: Presented at the First European IABPA Conference held in Middelburg, The Netherlands. 02/06

THE SIGNIFICANCE OF LIMITED QUANTITIES OF IMPACT SPATTER ASSOCIATED WITH BEATING SCENES: Presented at the 18th International Symposium on the Forensic Sciences (Classroom to Courtroom) held in Fremantle, Western Australia. 04/06

CRIME AND DEATH SCENE RECONSTRUCTION UTILIZING BLOODSTAIN PATTERN ANALYSIS: Presented at the Nebraska Institute of Forensic Science, Lincoln, Nebraska, 10/06.

BLOODSTAIN ANALYSIS AND RECONSTRUCTION: Presented at the Louisiana Capital Assistance Center Training Seminar, New Orleans, Louisiana, 12/06.

BASIC BLOODSTAIN PATTERN RECOGNITION: Presented at the 2nd Annual Homicide Conference sponsored by the Palm Beach County Sheriff's Office in Boca Raton, Florida. 12/06.

BLOODSTAIN PATTERN WORKSHOP; Presented at Nova Southeastern University, Fort Lauderdale, Florida. 01/07.

BLOODSTAIN PATTERN RECOGNITION: Presented at North Broward Preparatory School, Coconut Creek, Florida. 03/07

BLOODSTAIN PATTERN RECOGNITION AND CASE REVIEW: Presented at the Iowa Division of the International Association for Identification, Marshalltown, Iowa. 05/07.

BASIC BLOODSTAIN PATTERN RECOGNITION: Presented at the 3rd Annual Homicide Conference sponsored by the Palm Beach County Sheriff's Office in Boca Raton, Florida. 12/07.

BLOODSTAINS AT OUTDOOR CRIME SCENES: Presented at the University of South Florida in conjunction with the Nebraska Institute of Forensic Sciences in Tampa, Florida. 12/07.

BLOOD SPATTER ANALYSIS IN HOMICIDE INVESTIGATIONS: Presented at the University of South Florida, Tampa, Florida. 03/08

BLOOD SPATTER ISSUES: Presented at the Wisconsin Association for Identification Conference, Wauwatosa, Wisconsin. 03/08

BLOODSTAIN PATTERN RECOGNITION: Presented at the South Florida Police Exposition, West Palm Beach, Florida, 06/08

BLOODSTAIN PATTERN ANALYSIS IN A QUADRUPLE HOMICIDE AND ATTEMPTED SUICIDE: Presented at the Second European IABPA Conference held in Zurich, Switzerland. 07-08

BLOODSTAIN PATTERN ANALYSIS: Presented at the Habeus Corpus Resource Center Fall Conference Series, San Francisco, California. 10/08

BLOODSTAIN PATTERN RECOGNITION: Presented at the Michigan Association of Medical Examiners Annual Conference in Mt. Pleasant, Michigan. 10/08

BLOODSTAIN PATTERN ANALYSIS WORKSHOP: Presented at the Palm Beach County Sheriff's Office Forensic Biology Section in West Palm Beach, Florida. 09/09

APPLICATION OF MATHEMATICS TO BLOODSTAIN PATTERN ANALYSIS: Presented at Mathematics Careers Discussion Panel at Palm Beach State College in Palm Beach Gardens, Florida. 04/10

BLOODSTAIN PATTERN ANALYSIS: Presented at the Forensic Science Training and the NAS Report sponsored by the Federal Public Defender's in the Southern District of Florida at Miami Dade College, North Campus in Miami, Florida. 04/10

THE USE OF BLOODSTAIN PATTERN ANALYSIS IN SELF DEFENSE ISSUES - TWO CASE EXAMPLES: Presented at the Third European IABPA Conference held in Lisbon, Portugal. 5/10

BLOOD SPATTER ANALYSIS IN HOMICIDE INVESTIGATIONS: Presented at the University of South Florida, Tampa, Florida. 09/10

BLOODSTAIN PATTERN RECOGNITION: Presented at Forensic Science Training Seminar in Dothan, Alabama, 10/10

CURRENT ISSUES AND TOPICS IN BLOODSTAIN PATTERN ANALYSIS SEMINAR: Presented at the University of South Florida, Tampa, Florida, 12/10

BLOODSTAIN PATTERN ANALYSIS – SCIENCE OR INK BLOT TEST: Presented at the Florida Association of Criminal Defense Lawyers Conference in Tampa, Florida, 3/11

BLOODSTAIN PATTERN ANALYSIS AND DEATH INVESTIGATION: Presented at the Fact Investigator Training Conference of the Georgia Capital Defender office, Atlanta, Georgia, 8/11

SCIENTIFIC PUBLICATIONS

FATAL DOXEPIN (SINEQUAN) OVERDOSE: Bulletin of the International Association of Forensic Toxicologists: Vol. 8, No. 3-4. 1972.

ANALYSIS OF STREET DRUGS IN A COLLEGE COMMUNITY: Journal of Drug Education: Vol. 2, No. 2. June 1972.

DEVELOPMENT OF EMERGENCY DRUG SCREENING: Wilson Memorial Hospital Newsletter: Vol. 1, No.5. November 1972.

SERUM ASSAY OF DIPHENYLHYDANTOIN (DILANTIN) AND PHENOBARBITAL DURING MANAGEMENT OF CONVULSIVE DISORDERS: Wilson Memorial Hospital Newsletter. Vol. 2, No. 10, April 1974.

TREATMENT OF DRUG ABUSE INCIDENTS AT LARGE YOUTH FESTIVALS: Addiction and Drug Abuse Report: Grafton Publications, April 1974.

EMERGENCY TOXICOLOGY: Wilson Memorial Hospital Newsletter: Vol. 3. No. 2, August 1974.

MEDICAL AND TOXICOLOGICAL ASPECTS OF THE WATKINS GLEN ROCK CONCERT: Journal of Forensic Sciences: Vol. 20, No. 1. January 1975.

RECOVERY FROM MASSIVE SELF-POISONING FROM ASPIRIN: New York State Journal of Medicine: Vol. 75, No. 9. August 1975.

PHENCYCLIDINE - STATES OF ACUTE INTOXICATION AND FATALITIES: Western Journal of Medicine: 123. (345-349). November 1975.

PHENCYCLIDINE -TISSUE DISTRIBUTION IN THE RAT: Clinical Toxicology: 9 (4), 573-582, 1976.

MEDICAL CARE AT LARGE GATHERINGS: National Institute of Drug Abuse. DHEW Publication No. (ADM) 76-267, 1976.

CONSIDERATION OF BLOODSTAIN PATTERN INTERPRETATION IN DEATH CASES: Peter Vallas Associates, Inc. Newsletter. Vol. 2. April 1984.

BLOOD EVIDENCE IN CRIME SCENE INVESTIGATION: Medico-Legal and Forensic Investigation Monograph Series with Dr. William G. Eckert, MD, International Reference Organization in Forensic Medicine Publication, Wichita, Kansas, 1987.

INVESTIGATION OF CREMATIONS AND SEVERELY BURNED BODIES:
The American Journal of Forensic Medicine and Pathology, Vol. 9, No. 3, September
1988.

INTERPRETATION OF BLOODSTAIN EVIDENCE AT CRIME SCENES:
Elsevier Series in Practical Aspects of Criminal and Forensic Investigations. Co-
authored with Dr. William G. Eckert, MD. Elsevier Publishing Company, New York,
N.Y. Amsterdam, The Netherlands. May 1989. Re-published by CRC Press, Boca
Raton, Florida, 1993.

DISINTERMENTS - THEIR VALUE AND ASSOCIATED PROBLEMS: The
American Journal of Forensic Medicine and Pathology, Vol. 11, No 1, March 1990.

THE PRACTICAL METHODOLOGY OF FORENSIC PHOTOGRAPHY: Elsevier
Series in Practical Aspects of Criminal and Forensic Investigations. David R.
Redsicker. Elsevier Publishing Company, New York, N.Y., Amsterdam, The
Netherlands. July 1991. Re-published by CRC Press, Boca Raton, Florida, 1993,
Contributing author.

PRACTICAL FIRE AND ARSON INVESTIGATION: 2nd Edition. CRC Series in
Practical Aspects of Criminal and Forensic Investigations. David R. Redsicker and
John O'Connor. CRC Press, Boca Raton, Florida, 1996, Contributing author.

INTRODUCTION TO FORENSIC SCIENCES: CRC Series in Practical Aspects of
Criminal and Forensic Investigations. William G. Eckert, MD. CRC Press, Boca
Raton, Florida, 1997, Co-author of the chapters, The Role of the Forensic Laboratory
and Bloodstain Pattern Interpretation.

SCIENTIFIC AND LEGAL APPLICATIONS OF BLOODSTAIN PATTERN
INTERPRETATION: CRC Series in Practical Aspects of Criminal and Forensic
Investigations, CRC Press, LLC, Boca Raton, Florida, 1998, Editor.

INTERPRETATION OF BLOODSTAIN EVIDENCE AT CRIME SCENES: 2nd
Edition. CRC Series in Practical Aspects of Criminal and Forensic Investigations. Co-
authored with Dr. William G. Eckert, MD, CRC Press LLC, Boca Raton, Florida,
1998.

FORENSIC SCIENCE- *An Introduction to Scientific and Investigative Techniques*:
Co-edited with Jon J. Nordby, CRC Press, LLC, Boca Raton, Florida, 2002.

FORENSIC SCIENCE- *An Introduction to Scientific and Investigative Techniques: Instructors Guide*: Co-edited with Jon J. Nordby and Sara Kreisman, CRC Press, LLC, Boca Raton, Florida, 2002.

FORENSIC SCIENCE- *An Introduction to Scientific and Investigative Techniques 2nd Edition*: Co-edited with Jon J. Nordby, CRC Press, LLC, Boca Raton, Florida, 2005.

PRINCIPLES OF BLOODSTAIN PATTERN ANALYSIS – *Theory and Practice*: Co-authored with Paul E. Kish and T. Paulette Sutton, CRC Press, Taylor and Francis Group, Boca Raton, Florida, 2005.

FORENSIC SCIENCE- *An Introduction to Scientific and Investigative Techniques 3rd Edition*: Co-edited with Jon J. Nordby, CRC Press, LLC, Taylor and Francis Group, Boca Raton, Florida, 2009.

RECOGNITION OF BLOODSTAIN PATTERNS – Co-authored with Paul E. Kish and T. Paulette Sutton, Forensic Science Series, Publication 313, Release 48, Chapter 37, Matthew Bender, New York, NY, October 2009.

EVALUATION OF THE CELESTRON HAND-HELD DIGITAL MICROSCOPE FOR USE IN BLOODSTAIN PATTERN ANALYSIS: Co-authored with Daniel Mabel, *Journal of Bloodstain Pattern Analysis*, Vol. 27, No. 1, March 2011.

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