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President's Message

I hope this finds everyone well!

As the summer gets underway I hope that everyone does all they can to get away from work to relax and spend valuable time with family and friends.

There has been a change on the board of directors. Joe Slemko resigned from the position of Sergeant at Arms. After some consideration concerning the recommendation, I appointed Nicholas Paonessa as the new Sergeant at Arms.

Nick has been present at every IABPA conference that I can recall. Additionally, he is very involved in BPA and I have found his input invaluable. If you don't know Nick, you are missing out on a first class guy.

Your board has been very busy entertaining many new ideas on ways to improve this great organization. I sent out a mass email to all of you that have chosen to sign into the IABPA web site asking for your input on the certification issue. The majority of the responses were, once again, in total support. There were some excellent comments, some we had already considered and some that were new, valuable ideas. The Certification Committee was increased and reorganized and several of those that responded to the mass email have volunteered to sit on the committee. Don Schuessler and Tony Mangione (VP Region 4) will be sharing the chair responsibilities. Please see the Certification Committee report for details. Your board is evaluating a different process in which new members are reviewed and voted on. We are looking at revamping the way we currently do the BPA instructors list.

Leah (VP Region 2) and Brett (VP Region 6) are working hard to improve the educational aspects of this organization by raising the bar on our standards. This is a vital topic of the IABPA as our primary mission is and always has been education.

I have been driving Carolyn (VP Region 1) nuts with By-Laws change considerations concerning the listed topics. Peter (VP Region 5) has been monitoring the translation committee that he co-chairs with Andre Hendrix. There has been much progress with our friends in Europe translating BPA terminology into each specific vernacular. Rex (VP Region 3) has also been very busy assisting as needed as well as chairing the Ethics committee. Norman says we are fiscally sound.

Norman has been working very hard on the Tucson Conference and says he has been able to continue the IABPA's excellent tradition of an outstanding educational line up. He promises that the banquet will be a memorable event for all that attend. Please join us in Tucson!

We have been working hard to expand the membership numbers that have registered on the IABPA Web Site. Please consider signing in. Look around and if you choose to do so, complete the needed information to get on the mass mailing list. ***This list is optional, and reserved for IABPA business ONLY!***

So far there are 400 people on this list and we have sent out 3 mass emails this year. Emails you can expect to see would be those that address current topics, major court rulings, deaths. It is not used for every day, general data. We are attempting to keep everyone informed and involved.

It is a privilege to serve with your board of directors. They are one of the hardest working groups of people I have ever had the pleasure of being involved with.

We are not done with what we have started and time is running short in 2012. As always, if you have any ideas or suggestions, please feel free to contact you regional VP or if you would like, me.

Blessings,

Todd A. Thorne,
President -IABPA

Arterial Bloodstain Patterns on Clothing – An Interesting Case Linking the Accused to the Scene

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Abstract: Distinctive blood patterns produced by breaching an artery of the body may be found at crime scenes. The victim often dies before medical assistance arrives and there may be extensive and diagnostic arterial patterns produced at the scene by the victim. However, it is rare to observe arterial patterns on the clothing of the offender even if that individual tries to render aid. This case study describes extensive arterial bloodstain patterns at the crime scene and on the clothing of the accused, which linked the accused to the time and place of the victim bleeding from the damaged artery. Bloodstains on the clothing were considered by the authors to be just as important as the bloodstain pattern evidence at the scene.

Keywords: forensic science, arterial pattern, blood pattern analysis, clothing, homicide

Arterial bleeding is an example of bloodstaining and is described as projected patterns produced under pressure (1, 2). Projected stains result from a force other than impact. An arterial pattern is produced when an artery is cut or severed. Repeated projections of blood often cause a characteristic pattern of “rise and fall” corresponding to the diastolic and systolic pressure in the heart. The arms, legs and neck have arteries close to the surface that may project blood when damaged and unimpeded by clothing or other parts of the body. There are many documented cases of extensive arterial patterns produced while the victim was ambulating through the scene. The distinctive ‘rise and fall’ pattern of arterial bleeding may be produced on walls, flooring, furniture and other stationary objects. There is little documentation in the forensic literature, however, of arterial bloodstain patterns on the clothing of the perpetrator.

The structure and composition of the fabric of the garment will influence the appearance of any bloodstain on that garment (Chapter 5, reference 3). Clothing does not have the smooth, non-adsorbent surface of walls and floors, and as a result, bloodstains may be distorted in shape compared to those observed at crime scenes. This distortion will depend on the ability of the fabric to absorb the bloodstains and the looseness of the weave, knit or felt of the garment material. Consequently, the composition and construction of the clothing of any bloodstained garment must be considered in the evaluation of any possible arterial bloodstain patterns.

The following homicide case (4) illustrates an arterial bloodstain pattern on an unexpected area of clothing of the accused which provided evidence linking that accused to actions at the crime scene.

Case Report

The accused and the victim shared an apartment in an apparently intermittent relationship with a history of domestic disturbance. During the night of the offense in March 2009, the police had responded to their apartment on three occasions regarding disturbance calls. Gunshots were later heard from the apartment and the accused also called 911 from his residence to report that his roommate had been shot. Police arrived to find the accused outside the second floor apartment.

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They entered the premises to discover the victim deceased on the floor of his bedroom having sustained several gunshot wounds to his upper body.

The victim was discovered in a supine position with his body rolled towards the right hip. He was clad only in a pair of green shorts and was barefoot. Bloodstains were present on the visible areas of his body and the front of his shorts. Arterial bloodstains were present on surfaces near his body which included the front door of a small refrigerator, a cylindrical clothes hamper, a curtain and miscellaneous materials (Figure 1). The arterial patterns could be traced from the bedroom, through the hallway (Figure 2), and to the front room. Arterial patterns with altered flow patterns were observed on the inside of the front door (Figure 3).



Figure 1. View of victim on floor of bedroom.

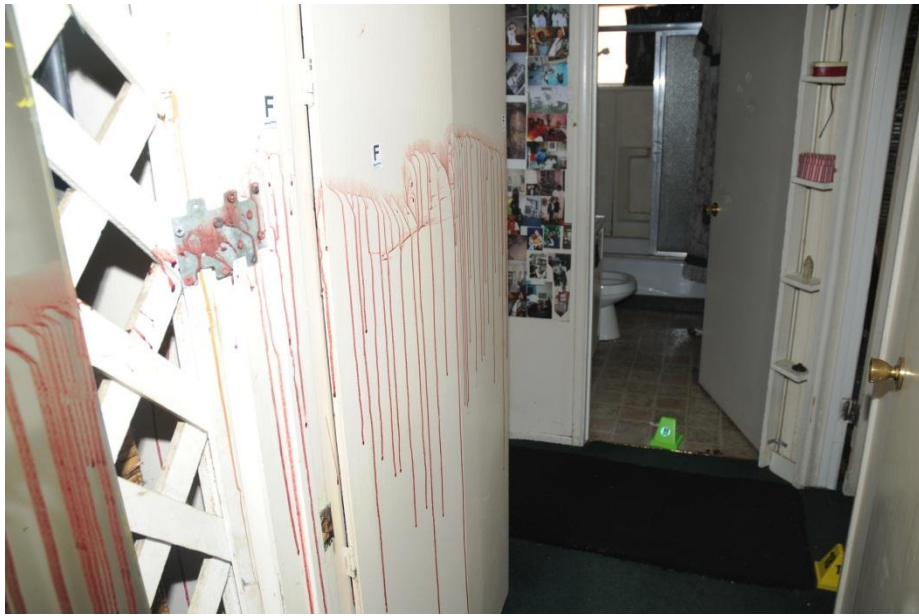


Figure 2. View of arterial bloodstain patterns on hallway wall.



Figure 3. View of arterial bloodstain patterns on interior of front door.

The accused was arrested and photographed in his clothing. Detectives observed bloodstains on the back of his T-shirt that they considered as consistent with “arterial spurting”. They also observed additional bloodstains on his blue jeans and the top of his shoes. The accused initially claimed that he never saw the shooting and found the victim in his bedroom.

The first author of this study was asked by the defense to review the bloodstain patterns at the scene and received the photographs and autopsy report. The autopsy report described four gunshot wounds to the upper body. One bullet entered the left upper arm, perforating the left brachial artery and both lungs before lodging in the muscle behind the chest cavity. The death was determined to be due to multiple gunshot wounds and the victim exsanguinated in only a few minutes.

It was agreed by all parties that the gunshot that perforated the left brachial artery of the victim occurred while he was in an undeterminable area of the front room. The arterial bloodstain patterns and altered flow patterns on the inside of the front door were created when the victim was within the apartment and the door was closed or was in the act of closing. He bled from the entry wound in the left upper arm onto vertical surfaces in the front room and entrance of the hallway producing arterial bloodstain patterns.

The victim then moved through the hallway creating arterial bloodstain patterns on the left side of the wall as he entered into his bedroom and collapsed on the floor. There were no interruptions observed in the arterial patterns along the hallway wall, which was significant in interpreting the bloodstains on the clothing of the accused.

Bloodstain patterns with the distinctive morphology of arterial bloodstain patterns were observed on the back of the T-shirt of the accused in the area between the shoulder blades and the bottom of the garment (Figure 4a), on the left rear pant pocket and on the lower left front pant leg (Figure 4b). Drip stains were noted on the top surfaces of both of his shoes. It was concluded that these bloodstain patterns were deposited on the clothing of the accused when the victim was bleeding from the gunshot wound that perforated his left brachial artery. The accused was standing upright near the victim either in the front room or in the bedroom when the victim projected blood onto his clothing, as there was still sufficient pressure from the artery to reach the upper back area of his T-shirt.

The clothing of the accused was photographed by the police. The black T-shirt was a typical mass-produced knitted garment so that assumptions can be made as to composition (cotton, polyester/cotton or similar) and construction (a plain knit). These types of garments have moderate absorption properties and do not significantly distort bloodstains or spatter.



Figure 4a. View of arterial bloodstain pattern on the rear of the shirt of the accused.



Figure 4b. View of arterial bloodstain pattern on the front of the jeans of the accused.

There was a linear progression of blood across the back of the T-shirt with projected bloodstains towards the lower back right panel, and flow patterns of blood from the linear progression produced through gravity. This type of morphology corresponds to arterial bleeding with projected blood sufficient to produce flow patterns. The width of the back of the garment was also sufficient to diagnose an arterial projection mechanism; conclusions may be more limited if the distance of travel is somewhat shorter than in this case. If this type of pattern was observed on a wall or other smooth surface at a crime scene then the initial hypothesis would generally be an arterial bloodstain pattern. Finding such a pattern on clothing introduces extra considerations.

The front left leg of the blue jeans exhibited large projected bloodstains which also accorded with the hypothesis of arterial bleeding as the accused was standing, facing the victim. Jeans are typically composed of cotton denim in a twill weave construction. This construction does not significantly distort blood drops as they land on the clothing.

A bloodstain pattern analyst may often encounter surfaces at crime scenes that are not ideal for elucidating morphology and determining a possible mode of mechanism of deposition. For example, walls may be porous or pitted, coated in paint with repellent properties, and blood may be deposited on joining walls at right angles to each other. The analyst makes allowances for these factors in their interpretation; and sometimes no conclusion can be reached. Similarly, the analyst needs to consider properties of the clothing on which blood is deposited when evaluating bloodstain patterns on clothing. The construction and composition of the clothing may impact the morphology of the bloodstain pattern. It is recommended that the clothing examiner have some background knowledge of garment construction and composition in considering their potential interaction with stains and deposits.

Cast-off blood patterns may occasionally be found on the upper back of the clothing of the perpetrator (Chapter 5, reference 3). These patterns are produced when a bloody implement is swung and blood droplets are released. These patterns are generally linear and associated with cast-off patterns on the ceiling and walls of the scene that are the most common targets for these types of patterns. Cast-off patterns do not exhibit the large quantities of blood as seen in arterial patterns and should readily be distinguished from projected bloodstains. However, if there is insufficient blood for a pattern to be discerned, the conclusions may be equivocal. The analyst should consider all possibilities until the type of weapon, wound descriptions and other bloodstain patterns have been correlated with the bloodstain patterns on the clothing.

Arterial bleeding can often be distinguished from venous projection due to the lower amount of pressure in the venous system (1,5). Cases of chronic venous insufficiency syndrome with hemorrhage may also produce similar patterns, but these are observed more on the lower walls and floor where the hydrostatic pressure is high in the legs. Nevertheless, it is imperative to ascertain at autopsy that an artery was severed and this can then be correlated with confidence to the projection patterns observed.

Complex patterns of small spatter can also occur at a scene with arterial bleeding. Small spatters are frequently associated with arterial spurts in addition to the more classical large volume projections with typical downward flow patterns on a vertical surface. Spine-like satellite spatters are also commonly observed within arterial patterns (1).

Bloodstain pattern analysts have recognized that there is an overlap between blood patterns produced in what was traditionally termed high, medium and low velocity events; and thus terminology has been adopted to incorporate stain morphology relative to mechanisms that may have produced them, with medical history and scene related facts (1). The analyst should be careful not to over-interpret each and every stain of a pattern and analyze the pattern as a whole, still recognizing that there may be overlapping mechanisms.

The criminal case against the accused was resolved on the first day of trial. The accused accepted a plea to involuntary manslaughter and the use of a firearm, although he always maintained that he was not the shooter.

Conclusion

This case study shows that examination of the clothing of the accused may reveal more important information than that of the crime scene. The findings of the bloodstain pattern analysis at the scene, blood patterns on the clothing of the accused, and the autopsy report of the deceased, formed a cohesive and concordant narrative of what may have happened during the crime event.

It is recommended that if bloodstain patterns are initially observed on the clothing of the accused that they are photographed and then examined for bloodstain pattern analysis. The composition and construction of the garment should also be considered as this may impact on the morphology of the observed bloodstains. The bloodstain patterns on the clothing of the accused, the blood patterns at the crime scene, and the autopsy examination can then be correlated for a scientifically defensible analysis.

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The Development of a Passive, Closed-System Pig Blood Collection Apparatus for Bloodstain Pattern Analysis Research and Crime Scene Reconstruction

Elisabeth Williams^{1,2}, Eric Neumann³, Michael Taylor¹

Abstract

Pig blood is commonly used as a substitute for human blood in bloodstain pattern analysis (BPA) research and for case-specific experimentation in forensic laboratories around the world. The 'free-catch' method is currently used in New Zealand to obtain pig blood from abattoirs (slaughterhouses); however haemolysis and contamination are frequently observed in samples collected by this method. This paper describes the development and validation of a simple, practical and reliable pig blood collection method capable of collecting relatively large volumes of high quality, non-haemolysed and uncontaminated blood, suitable for research or case-specific experimentation.

Introduction

Due to the biohazard risks associated with using human blood, bloodstain pattern research frequently uses animal blood substitutes. Among these, pig blood has been shown to be a valid alternative due to the similarity in physical properties [1]. Traditionally in our laboratory, pig blood has been obtained from a local abattoir using what is termed the 'free-catch' method. The routine abattoir slaughtering process is initiated through application of an electrical current simultaneously across the head, brain stem, and heart of the pig which produces an instantaneous loss of consciousness. Immediately following loss of consciousness, pain-free death is achieved by severing the major blood vessels that pass through the thoracic inlet and allowing the blood volume to be expelled from the carcass. The severing is accomplished by manually incising the skin and subcutaneous tissue at the extreme caudal region of the neck using a purpose-built knife; this process is colloquially referred to as 'sticking'. The "free-catch" blood collection method traditionally used involves placing a 500 ml glass bottle containing anticoagulant, such as EDTA (ethylenediaminetetraacetic acid) salt or heparin, under the sticking point in the neck of the pig in order to harvest blood directly from the gushing vascular flow.

Haemolysis is defined as the rupture of erythrocytes which causes haemoglobin to be released into the plasma which alters the viscosity of blood [2] and is therefore a potential source of experimental variation in BPA. In our experience with the free-catch method, a substantial amount of haemolysis has been observed in one out of every five bottles of blood collected. This was thought to be a result of both physical damage to the erythrocytes from the fast, turbulent blood flow gushing from the pigs' vessels, and physiological damage induced by an incorrect blood to anticoagulant ratio.

The ratio of anticoagulant to blood is important to control as solutions not isotonic to blood are likely to cause swelling (or conversely, shrinking) of the erythrocytes which in addition to causing haemolysis, can have a noticeable effect on measurements of packed cell volume, total plasma protein and haematocrit [3]. Furthermore, in our experience, hair, skin and dirt contamination can occur in free-catch samples, further increasing the risk of bacterial-induced haemolysis and sample degradation. For these reasons, an alternative to the free-catch method was sought.

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Existing methods for the controlled collection of animal blood in abattoirs have been devised for applications such as foetal bovine serum (FBS), a common reagent used in biological research and methods [4]. These methods utilise small-bore intravenous needles similar to those used in a human blood bank, but they are slow and may require up to 10 minutes to fill a 500 ml collection bag. This slow pace of collection is generally not feasible in a typical abattoir setting unless there is a commercial imperative for the collection of the blood product, which is not generally the case for BPA research.

Some biotechnology companies with dedicated long-term needs for animal serum have access to specialised herds of donor cattle, sheep and deer. The use of pigs in this context has diminished due to the lack of a defined market for pig blood products, difficulty in the restraint of pigs when collecting the samples, and the delicate nature of pig blood, making handling and processing of the samples a challenge. In addition, obtaining blood from a live donor pig for forensic research requires the assistance of a qualified veterinarian and a pig farmer willing to allow blood collection on a regular basis. Due to the costs and logistical constraints involved in setting up a sustainable and simple process for collecting blood from live pigs, a practical method was devised for obtaining quality pig blood in an abattoir environment.

The design of a system to obtain quality pig blood from abattoirs needed to overcome the inadequacies of the free-catch method, have minimal impact on normal abattoir operations, have no negative food quality/safety impact on the carcass and comply with health and safety requirements for workers in the abattoir.

The BPA laboratory requirements for a collection system were specified as follows:

1. A relatively closed system with smooth, laminar flow into a collection vessel to avoid damaging the RBCs from turbulent flow.
2. Minimal contamination resulting from contact between blood and the pig's skin.
3. A means of regulating the blood volume to be collected so that an ideal anticoagulant to blood ratio was achieved.
4. A container which could be sealed post-collection to enable thorough mixing of anticoagulant and blood.

The following abattoir compliance policy issues were considered in the design:

1. The maximum allowable time between stunning and sticking in New Zealand abattoirs is 15 seconds.
2. The faster the animal is bled out, the better the quality of the meat. The bleeding process must not be compromised or interrupted. The system must prevent any backflow back towards the animal as this could allow blood to coagulate in the thoracic cavity with a resulting negative impact on carcass quality.
3. All equipment involved in the collection system needs to be easy to operate and convenient for the abattoir staff to assemble, use and disassemble to accommodate practical time constraints of abattoir staff.
4. Filling a blood collection container to some specified level must not require abattoir staff to spend time monitoring the volume of blood. An apparatus to automatically control this must be devised.
5. Cleaning the equipment at the abattoir must be convenient and fast for the abattoir staff.
6. The collection system must not take up any more space than necessary given the limited physical space in the sticking area.
7. The entire system must be able to be held, rather than placed on the ground so that the system can be carried in and out of the sticking area, minimizing any disruption to the slaughtering operation.

Materials and Methods

System Design

Pigs will lose approximately 80% of their blood volume in the first two minutes after sticking and yield a total volume equal to approximately 5% of their body weight [5]. Complete exsanguination is achieved over approximately five minutes.

In the commercial abattoir used for this project, the slaughter throughput rate for large pigs (175-200 kg bodyweight) was purposefully designed to be slower than that used for processing typical butcher-weight pigs (75-100 kg bodyweight) and as such, afforded a more suitable environment to develop a new blood collection device. In addition, the physical space that was designed for processing the larger pigs in this particular plant was more spacious and could easily accommodate the one extra staff member and the equipment required for our blood collection.

In commercial abattoirs, pigs are usually exsanguinated using a sharp knife which is inserted into the thoracic inlet to sever the major vessels of the neck. The knife is immediately pulled away leaving the blood to drain freely. The abattoir assisting with this project made available to us a hollow blood collection knife known as a ‘vampire knife’. The vampire knife is 40 cm long with a hollow handle and designed for the commercial collection of blood for human consumption [6] (Figures 1 and 2). When a vampire knife is used, the blade is inserted into the animal’s aorta, blood flows down the knife blade, through the hollow knife handle and into a tube. The knife is designed to minimise leakage around the insertion point. A 32 mm diameter hose attached to the handle end allows the blood flow to be directed into a collection container. Incorporating the vampire knife into the design of our blood collection device provided the opportunity to develop a relatively closed collection system.



Figure 1. Vampire knife with a 32 mm tube placed over the end of the hollow handle.



Figure 2. Close-up perspective of Vampire knife blade.

The basic requirements of this passive flow system were to direct blood smoothly from the blood vessels in the pig's neck into a containment vessel containing anticoagulant. To ensure the correct ratio of anticoagulant to blood, a float valve apparatus was installed at the junction between the collection tube and the container to shut off the blood flow when the correct volume was reached.

To use the collection device, the vampire knife was sterilized and attached to a clean 1.5 m long, 32 mm diameter hose through which the blood flowed (Figure 3). The hose was fitted to one end of a PVC irrigation T-piece held in place by a polyoxymethylene, or 'acetal' plastic bracket, which comprised part of a purpose-built container collection lid (Figure 4). The blood flowed through the T-piece and into a 3.25 L plastic container containing anticoagulant, through the float valve.



Figure 3. Assembled passive flow collection system.

The float valve (Figure 5) comprised a rubber O-ring (a) fitted inside the lower portion of the acetal bracket (b) and a table tennis ball (c) inside an acetal cage (d) on the underside of the container lid (e). When the blood volume in the container reaches the desired maximum level, the table tennis ball is pushed upwards onto the O-ring, creating an effective seal and stopping any further flow. Excess blood still flowing from the pig bypasses the collection container, flowing out the opposite side of the T-piece through a further length (40 cm) of hose, directed back to the abattoir waste collection system. Two 6 mm holes drilled into the container lid allowed air to be displaced as the container filled.

After blood collection, each container was sealed by replacing the modified container lid with an unaltered lid for storage. Once in place, the containers full of blood could be gently inverted for 30 seconds to thoroughly mix blood and anticoagulant.



Figure 4. Blood container collection lid with float-valve shut-off device.

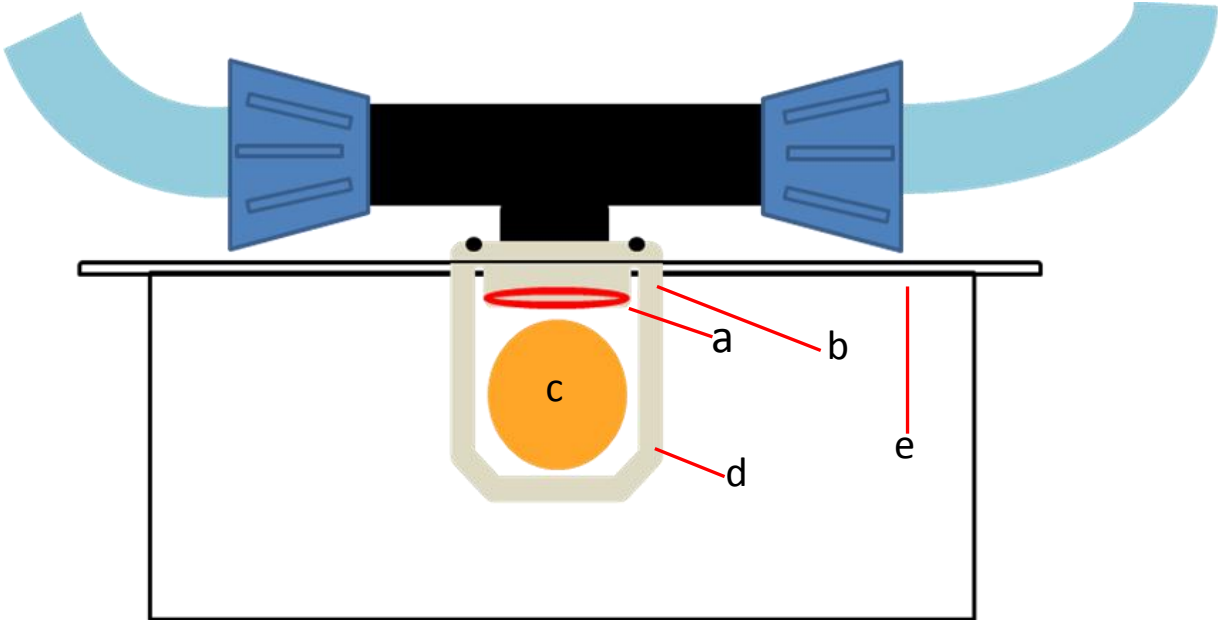


Figure 5: Diagram of the collection system float valve.

Prototype testing

Fifteen trials were performed to develop a prototype of the final design with particular emphasis on the design of the volume specific shut-off system. With several modifications to the prototype, the final collection design was able to capture a fixed volume of blood with reproducible results (3420 ml +/- 1.5 ml; <0.05% error).

The suitability and effectiveness of the collection system was evaluated in an abattoir setting using the following protocol:

1. The appropriate volume of anticoagulant solution¹ was placed into a collection container.
2. The collection tube was rinsed with anticoagulant solution to prevent clotting in the tube prior to blood entering the container.
3. A modified collection lid was placed on the container with the tubes and the vampire knife attached. The assembly, along with storage lid, was taken to the sticking area by abattoir staff.
4. The vampire knife was sterilised with hot water (82°C).
5. The container was filled, and the collection lid was immediately replaced with the storage lid. The container was gently inverted 10 times to mix the blood and anticoagulant.
6. Blood was transferred into smaller (500 ml – 2L) plastic bottles, packed with Therasorb® Chill Wrap Ice Replacement sheets in an insulated container.

Results

Blood was collected from 15 commercial pigs using the protocol described above and yielding a total of 48.6 L of blood. Multiple collection devices were assembled to facilitate rapid collection and each collection device was thoroughly cleaned with warm water and detergent, rinsed with cold water followed by ACD solution prior to any reuse. The abattoir staff reported that the system was convenient to use and that it was small enough to be easily manipulated in the exsanguination area of the plant. The collection system complied with all abattoir regulations relating to initiation time and duration of the sticking process.

Blood samples were transported to the Environmental Science and Research (ESR) laboratory within four hours of collection. In the laboratory, samples were subjectively assessed for the presence of foreign matter and clots. A 50 ml aliquot from each sample was centrifuged (6000 rpm, 5 minutes) and subjectively scored for haemolysis. No foreign material was found in any of the samples, and palpable clots were found in only one sample. Nine of fifteen samples showed no haemolysis. The remaining six samples had minor haemolysis, which may have been due to the inadequate removal of residual clotting remaining in the tubes, as these samples represented the last six samples that were collected. A revised protocol eliminating the re-use of tubes was subsequently developed.

After collection, blood was stored at 4 °C and was gently agitated every two days. On day 15 after collection, an aliquot of blood from each pig was centrifuged and re-assessed for haemolysis and clotting. Two samples were moderately haemolysed and both represented samples that were noted to have slight haemolysis on the day of collection. One sample was noted as having several clots on day 15 post-collection.

¹ 12.5% Acid Citrate Dextrose solution, Formula A (ACD-A), Baxter Healthcare Pty. Ltd, Old Toongabbie, N.S.W, Australia.

Conclusions

In addressing the issues important to blood collection for BPA, the novel collection system proved to be successful in obtaining relatively large volumes of pig blood free of contamination from foreign matter, were not haemolysed, and had appropriate incorporation of anticoagulant to maintain high quality blood for up to 15 days after collection. The collection method was easy for abattoir staff and complied with all conditions required by the abattoir. The simple design of the collection system was relatively inexpensive, easy to construct, and would be adaptable to most BPA laboratories and commercial abattoirs.

Acknowledgements

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Daniel Rahn Memorial Research Grant



1946-2002 - Daniel J. Rahn

Excerpts from "A Tribute to Dan Rahn", IABPA News, September, 2002 by Insp. Bruce MacLean (RCMP):

"At the time of his death, Dan was the president of the International Association of Bloodstain Pattern Analysts. Dan put a tremendous amount of time and energy into this organization." "Dan was without a doubt one of the finest forensic identification technician and bloodstain pattern analysts I have ever met. As you all know, he was extremely intelligent and possessed a gifted analytical mind."

As a memorial to Dan, the IABPA has established a research grant intended to advance the science of bloodstain pattern analysis. One such grant (currently up to US\$3000) is available each year. The readership is reminded that the application procedure and recipient obligations are detailed on the IABPA website at <http://iabpa.org/daniel-rahn-memorial-research-grant>.

Committee Reports

Dan Rahn Grant Committee

Research proposals for this grant are evaluated once a year and the application deadline for 2012 consideration is September 01. The selection decision will be announced at the October 2012 Annual Conference. This year's Dan Rahn Grant evaluation and selection committee consists of:

Lynne D. Herold, Ph.D., Senior Criminalist
Los Angeles County Sheriff's Department, Scientific Service Bureau
Los Angeles, California, USA

Silke M.C. Brodbeck, MD, PhD
Appointed and sworn expert for BPA and CSR,
Blutspureninstitut, Usingen, Germany

Martin Eversdijk
Amsterdam Police, The Netherlands

T. Paulette Sutton, MS, MT (ASCP)
Retired, Memphis and Shelby County Medical Examiner's Office
Associate Professor, University of Tennessee, USA

Brian Yamashita, Ph.D., Research Scientist
Technology and Science Development Royal Canadian Mounted Police
Ottawa, ON CANADA

Education Committee

The Education Committee is continuing work on the draft for Advanced Class requirements. We hope to have a final draft to the Executive Board in July. As always, we are looking for input from instructors of advanced classes. Please email Leah Innocci (linnoc1@gmail.com) with any questions.

Leah Innocci, CCSA
Wyoming State Crime Laboratory
208 S. College Drive
Cheyenne, WY 82002
Main Lab Phone: 307.777.7607
Direct Line: 307.777.5435

Membership Committee Report

Applications and requests for promotions processed since August 2011

Region I	4
Region II	11
Region III	18
Region IV	43
Region V	24

Bylaws Committee Report

The Bylaws Committee and the Board, will be considering whether three changes should be presented to the membership for consideration.

One deals with how membership applications are processed. Currently, an applicant must wait until the annual conference's Business Meeting for a membership vote before being accepted as a member. This could mean an applicant could wait as long as fourteen months to be voted in. The committee will be considering changing the process to a Board vote, to occur three or four times a year, rather than a single annual membership vote with two months' notice. The applicants' names would be posted on the website to allow for members' input prior to each Board vote. Discussions have just begun on how best to maintain a current list of IABPA-approved basic bloodstain pattern classes, and whether this would require any Bylaws change.

The idea of establishing a candidate search committee, responsible for facilitating publication of candidate statements and striving to offer more than one candidate per position is being considered.

The Bylaws Committee and the Board are currently considering some changes to the Bylaws. Once decided, those changes will be posted on the members-only area of the IABPA Website at least 60 days before the October Business Meeting. Please check there in order to review the changes.





CONFERENCE REGISTRATION FORM

The conference will be a blend of case and research presentations to the general session and scheduled workshops. The conference schedule and workshop information will be published and posted on **www.iabpa.org**. Workshop pre-registration will be available when the conference schedule is published on the IABPA website.

SPOUSE/GUEST COORDINATOR

MARY ANN REEVES
Maryannr1@mac.com

Please complete and e-mail this form to Norman Reeves at:

norman@bloody1.com

Submit by Fax to: 520-760-6620, or

Submit by mail with payment (Check or Purchase Order):

IABPA

12139 E Makohoh Tr. Tucson, AZ 85749

520.760.6620

FAX 520.760.5590

Credit card payment at www.iabpa.org

The Conference will be held at the beautiful Hilton Tucson East Hotel located at:

7600 East Broadway, Tucson, Arizona 85710-5696

Tel: 520-721-5679

Telephone reservation Code: IABPA

The Conference room rate is 95.00 per night + taxes that includes daily breakfast buffet.

Reservations may be made on-line at the IABPA website

www.iabpa.org

Reservations on-line Group Code: BLOOD

Last Name:

First Name:

IABPA Member Yes No

Member #

Name as you would like it to appear on the attendance certificate:

Agency:

Address:

City:

State/Province:

Postal Code:

Country:

Telephone:

E-mail:

Will *guest(s) be attending the Thursday conference dinner?

Yes No

Names of guest(s) attending banquet:

Please indicate any special dietary needs:

**Additional banquet cost is \$55 USD per guest (please include with registration).*

Arrival Date and Time if known:

REGISTRATION

- \$375.00 (Early payment received, prior to May 1)
- \$425.00 (Payment received after May 1)
- \$450.00 (Payment received after August 30, 2011)
- \$500.00 (Payment received in October, 2010 or on site)
- \$325.00 STUDENT FEE (Student ID card proof needed)
- Credit Card Payment www.iabpa.org

**On-site registration begins at 4:00 PM Monday, October 1, 2012.
Refund requests must be made before September 1, 2012.**

Air Travel to Tucson

Tucson International Airport is literally one stop away from more than 200 U.S. locations as well as a nonstop flight from 15 major cities throughout the country. In addition, direct service – one stop no plane change – is available from 25 destinations. For up-to-date schedules and connections, go to www.flytucsonairport.com.

Travel with Ease

Competitive airfares can be found online at www.flytucsonairport.com. For planning purposes, your Tucson sales representative can provide you with a city-to-city airfare comparison generated though ITA's QPX for your top 10 originating cities. Call 1-888-2-TUCSON for more information.

TIA offers real convenience. TIA recently completed a \$110 million makeover resulting in many new traveler amenities including expanded ticket queuing and security checkpoints, additional baggage carousels, and free Wi-Fi throughout the terminal complex. Short security lines; proximity of ticket counters, gates, and baggage claim carousels; and uncrowded waiting areas provide a refreshingly smooth arrival and departure experience for meeting attendees.

Direct flights are available from:

Albany, NY . Austin, TX . Bakersfield, CA Burbank, CA . Columbus, OH . Edmonton, Canada, El Paso, TX . Fresno/Yosemite, CA . Grand Junction, CO . Hartford, CT Huntsville, AL . Kansas City, MO . Louisville, KY . Memphis, TN . Nashville, TN . Oakland, CA . Oklahoma City, OK . Orange County, CA . Orlando, FL . Palm Springs, CA . Portland, OR . Reno, NV . Sacramento, CA . San Jose, CA and San Louis Obispo, CA

To learn more about Tucson, log on to www.visitTucson.org or call 1-888-2-TUCSON. Ask your sales representative for a city-to-city airfare comparison.

PRESENTER REGISTRATION FORM

If you are interested in presenting at the 2012 training conference,
we would like to hear from you!
Presenters include anyone willing to conduct a workshop,
present a case or share research.

Please complete and e-mail this form to:
Norman Reeves
norman@bloody1.com

Or submit by mail:
IABPA
12139 E MAKOH OH TRL
TUCSON ARIZONA 85749
520.760.6620

Last Name:	<input type="text"/>
First Name:	<input type="text"/>
Agency:	<input type="text"/>
Street Address:	<input type="text"/>
City:	<input type="text"/>
State/Province:	<input type="text"/>
Postal Code:	<input type="text"/>
Country:	<input type="text"/>
Telephone:	<input type="text"/>
E-mail:	<input type="text"/>

Please e-mail or mail CD's with Power Point presentation by September 1.

Title of Presentation:

Workshop: *Attach Abstract*

Presentation to General Session: *Attach Abstract*

Brief Presenter's Biography Attached

Bring Your Own Case

Presentation Time Requested:

Equipment Needed:

Laptop

Power Point Projector: Provided by IABPA

Wireless Microphone: Provided by IABPA

Laser pointer: Provided by IABPA

Other:

WORKSHOP PRESENTERS ONLY:

Maximum number of participants per session:

Number of sessions are you willing to present:

Supplies and space required; Include additional comments:



The 4th European IABPA Conference to be held in Edinburgh, Scotland, UK November 12-14, 2012

The Conference

The 4th European IABPA Conference will be held at the Royal College of Surgeons in Edinburgh, Scotland, UK, one of the world's most beautiful capital cities. Edinburgh is a stunning fusion of fabled streets and historic buildings contained within a vibrant modern city, making Edinburgh the perfect destination for an inspiring conference. Edinburgh is a dynamic, prosperous, forward-looking European city attracting over 6 million visitors and conference delegates throughout the year. It is home to the world famous Edinburgh Castle and The Palace of Holyrood. Edinburgh plays host to the internationally renowned Edinburgh Festivals, the Edinburgh Military Tattoo and is now also the home of the Scottish Parliament. Delegates will enjoy exploring the city's medieval Old Town and Georgian New Town, which has been awarded World Heritage Site status and Edinburgh's quay where the former Royal Yacht Britannia is permanently berthed.

Edinburgh's academic excellence and research institutions have received international acclaim for excellence in the sciences, technology and medicine.

Conference Host

Amanda Anne Pirie
E-mail: amanda.pirie@spsa.pnn.police.uk

Conference Venue

The Royal College of Surgeons of Edinburgh (<http://www.surgeonsll.com>) celebrated its Quincentenary year in 2005 and has one of the largest collections of pathological anatomy in the United Kingdom. Located in the heart of Edinburgh and only ten minutes away from Princes Street and Edinburgh Castle their hotel provides comfortable accommodation for conference delegates and is situated adjacent to the chosen conference venue.

Conference Hotels and Accommodations

The Edinburgh Convention Bureau has negotiated rates for the European Meeting of the International Association of Blood Pattern Analysts, 12 – 14 November 2012 and is pleased to offer a free online accommodation booking service to delegates attending this meeting. These include the following accommodation and hotels:

The Jurys Inn, Edinburgh Hotel (Three star)
43 Jeffrey Street, Edinburgh, EH1 1DH,

Tel:+44 (0)131 200 3300

www.jurysinns.com

Ten Hill Place (adjacent to conference venue) (Four star)

10 Hill Place, Edinburgh, EH8 9DS,

Tel: +44 (0)131 662 2080

www.tenhillplace.com

MacDonald Hilton Hotel (Four star)

81 Holyrood Road, Edinburgh, EH8 8AU,

Tel: +44 (0)844 879 9028

www.macdonaldhotels.co.uk

Caledonian Hilton (Five star)

Princes Street, Edinburgh, EH1 2AB

Tel: +44 (0)1312228888

www.caledonianhiltonedinburgh.co.uk

The Fountain Court Apartments (Three and Four stars)

123 Grove Street, Edinburgh, EH3 8AA

Morrison Street, Edinburgh (Harris Apartments)

www.fountaincourtapartments.com

To view and book the various accommodation options please click on the link below.

<https://cabs.conventionedinburgh.com/ei/cm.esp?id=150335&pageid=3EY0XYTGS>

Credit card details are required to make a booking and confirmation shall be sent to your e-mail address. Payment should be made directly with the accommodation provider at the time of your stay.

To contact Edinburgh Convention Bureau, either e-mail: bookings@conventionedinburgh.com or telephone on +44 (0) 131 473 3874.

Conference dinner and Ceilidh

At the Ghillie Dhu (www.ghillie-dhu.co.uk) on the evening of Tuesday 12th November, we will be hosting a three course dinner with wine including a glass of sparkling wine on arrival. Some traditional Scottish Ceilidh dancing will follow this. The Ghillie Dhu is a beautifully restored Grade A listed building, which was originally the St Thomas Episcopal Church. It is tucked in at the west end of Princes Street and is ideal for a Scottish themed dinner.

Registration

Registration fees include the 3-day conference with lunch and tea/coffee breaks each day and conference dinner/Ceilidh on the Tuesday evening.

Early bird deal - Register before 1 April 2012	£300
Register before 1 November 2012	£330
Register after 1 November 2012	£350
Speakers	£200
Guest/spouse dinner/Ceilidh ticket	£50

Exhibitors approx. £600

(Includes space and lunch for two people and coffee breaks and is dependent on size of exhibition space required and additional support required). Exhibitors please contact Amanda Pirie directly.

Access by Air

Edinburgh International Airport is only 8 miles (12km) from the city centre and has very good connections to the city via taxi and by express coach. Over 120 destinations are served by over 40 airlines between Europe and North America, and there are high-speed rail links to all major cities in Britain.

- Taxi – no need to book, always available at Taxi rank – approx. £21-24 each way (22 Euros).
- Airport Express bus – approx. 20min into the city centre - £3.50 each way (4 Euros).

By Rail

Edinburgh Waverley Station is 10 minutes' walk from the Conference venue. Edinburgh is linked to all the major cities and airports in Britain. The high speed link to London gets you from the heart of one city to the other in just four hours, while the Eurostar service connects Paris to Edinburgh in around eight hours. National Rail Enquiries: 08457484950 or their website.

www.nationalrailenquiries.co.uk

By Bus

Inter-city bus services terminate at the St Andrew's Square Bus Station, situated next to the St James Centre shopping Centre. Buses from Princes Street (stops on the side of the street lined by shops) going north are very frequent. Services passing the conference venue include numbers 3, 5, 7, 8, 14, 31 and 33.

By Road

The nearest exit from the City Bypass (A702) is the Straiton junction. From here follow the signs for the City Centre. The route is fairly straight, through Liberton. At the foot of Liberton Brae go straight on to Liberton Road and continue straight on at the traffic lights. Carry straight on for approx. 2km. This continues into Clerk St, which then continues into Nicolson Street.

Weather

The weather is temperate with annual rainfall less than Rome, Frankfurt and New York, and the city enjoys, clear, crisp, sunny days in spring and autumn.

Further information and useful websites

Experience Edinburgh - With listings for bus tours, pubs & restaurants, shopping and golf courses and adventure packed activities:

<http://www.experienceedinburgh.org/>

To add this to your conference site, pass this web link onto your IT department:

http://www.conventionedinburgh.com/Experience_Edinburgh_Link_Pack.html

Reduced Bus Fares - Book reduced fares on the Air link bus ticket and also on the exciting city sightseeing bus tours before you arrive in the city.

<https://kiosk.iristickets.co.uk/k?lothianbuses&ECB&ka=ECB&TRACKER=ECB&promo=ECB>

Edinburgh Tourist Information: www.edinburgh.org

Visit Scotland: www.visitscotland.com

Today's weather: www.bbc.co.uk/weather/5day

Edinburgh Airport: www.edinburghairport.com

Rail Transport: www.nationalrail.co.uk

IABPA EUROPEAN CONFERENCE 2012 EDINBURGH CONFERENCE PROGRAM

MONDAY 12 NOVEMBER

0830-0900: Registration (Quincentenary Hall Reception Area)

Main Conference – Playfair Main Hall

0900-0930: Opening and Welcome
*Tom Nelson, SPSA Forensic Services, UK and
TBA, Scottish Crown Office, UK*

0930-0945: Welcome - IABPA President and European Vice-President
Todd Thorne and Peter Lamb

0945-1015: Case Presentation
Todd Thorne, US

1015-1045: Amylase Negative Inclusions in a Bloodstain Pattern as Sign of Expired Blood in a
Crime Scene Reconstruction
Silke Brodbeck, Germany

1045-1115: *Coffee break (Catering and exhibitions area – Wolfson Hall)*
Opportunity to view exhibitor stands and poster presentations

1115-1145: Visualisation of Cast-Off Patterns Using 3D Modelling Software
Andy Maloney, FORident Software, Canada

1145-1245: Defence Review including Case Examples
John Manlove, Manlove Forensics Ltd, UK

1245-1415: *Lunch (Catering and exhibitions area – Wolfson Hall)*
Opportunity to view exhibitor stands and poster presentations

MONDAY 12 NOVEMBER (Cont'd)

Afternoon Workshops/Seminars:

1415-1500:

Option A - Workshop	<i>TBA</i>	Jo Millington, <i>Metropolitan Police Forensic Science Laboratory, UK</i>	'GB Ong Room' A
Option B – Seminar	<i>Competency Assessment in Forensic Science</i>	Charles Welsh, <i>Skills for Justice, UK</i>	'The Tausend Room' B
Option C – Seminar	<i>Stiff Upper Lip – the Emotional Welfare of the Forensic Scientist at and after the Crime Scene</i>	Deb Hopwood, <i>LGC Forensics, UK</i>	'The Wadsworth Room' C

1500-1530: Coffee Break (Catering and exhibitions area – Wolfson Hall)

Opportunity to view exhibitor stands and poster presentations

1530-1615:

Option A - Workshop	<i>TBA</i>	Jo Millington, <i>Metropolitan Police Forensic Science Laboratory, UK</i>	'GB Ong Room' A
Option B – Seminar	<i>Competency Assessment in Forensic Science</i>	Charles Welsh, <i>Skills for Justice, UK</i>	'The Tausend Room' B
Option C – Seminar	<i>Stiff Upper Lip – the Emotional Welfare of the Forensic Scientist at and after the Crime Scene</i>	Deb Hopwood, <i>LGC Forensics, UK</i>	'The Wadsworth Room' C

Evening:

1900h: Drinks reception at the Great Hall, Edinburgh Castle

TUESDAY 13 NOVEMBER

Main Conference – Playfair Main Hall

0900-0930: Area of Origin Calculations
Jim Fraser, University of Strathclyde, UK

0930-1000 Case Presentation *TBA,*
Scottish Crown Office

1000-1015: Case Presentation: BPA in a Cold Case
Andrea Berti, Carabinieri, Italy

1015-1045: Case Presentation: Honour Killing
Andy Schweizer, Forensic Science Institute, Switzerland

1045-1115: Coffee break (Catering and exhibitions area – Wolfson Hall)
Opportunity to view exhibitor stands and poster presentations

1115-1200: Application of the Principles of Case Assessment and Interpretation (CAI) to BPA
Graham Jackson, Advance Forensics, UK

1200-1230: BPA in Road Traffic Collision Investigation – a Forgotten Art? *Chris*
Gannicliffe, SPSA Forensic Services, UK

1230-1400: Lunch (Catering and exhibitions area – Wolfson Hall)
Opportunity to view exhibitor stands and poster presentations

Afternoon Workshops:

1400-1530:

Option A - Workshop	<i>Blood Enhancement</i>	<i>Martin Eversdijk, Loci Forensics, Netherlands</i>	'GB Ong Room' A
Option B – Workshop	<i>Exploring the Practicalities of Applying Case Assessment and Interpretation (CAI) to BPA Cases</i>	<i>Ben Mallinder and Kathy Robertson, SPSA Forensic Services, UK and Graham Jackson,</i>	'The Tausend Room' B

		<i>Advance Forensics, UK</i>	
Option C – Workshop	<i>Visualisation of Cast-Off Patterns Using 3D Modelling Software</i>	<i>Andy Maloney, FORident Software, Canada</i>	'The Wadsworth Room' C

TUESDAY 13 NOVEMBER (Cont'd)

1530-1600: Coffee Break (Catering and exhibitions area – Wolfson Hall)

Opportunity to view exhibitor stands and poster presentations

1600-1730:

Option A - Workshop	<i>Blood Enhancement</i>	<i>Martin Eversdijk, Loci Forensics, Netherlands</i>	'GB Ong Room' A
Option B – Workshop	<i>Exploring the Practicalities of Applying Case Assessment and Interpretation (CAI) to BPA Cases</i>	<i>Ben Mallinder and Kathy Robertson, SPSA Forensic Services, UK and Graham Jackson, Advance Forensics, UK</i>	'The Tausend Room' B
Option C – Workshop	<i>Visualisation of Cast-Off Patterns Using 3D Modelling Software</i>	<i>Andy Maloney, FORident Software, Canada</i>	'The Wadsworth Room' C

Evening:

1930 – Dinner and Ceilidh at the Ghillie Dhu

WEDNESDAY 14 NOVEMBER

Main Conference – Playfair Main Hall

- 0900-0930: Research Project on Saliva/Blood Mixtures
Stuart James, James and Associate Forensic Consultants Inc., US
- 0930-1000: Detection Limits using Luminol in the Forensic Investigation as a Presumptive Test for Blood and the Impact of Different Cleaning Agents on the Results
Sabine Hess, Forensic Science Institute, Switzerland
- 1000-1030: Case Presentation: The John Brennan Murder
Richard Vallance, SPSA Forensic Services, UK
- 1030-1100: Coffee break (Catering and exhibitions area – Wolfson Hall)**
Opportunity to view exhibitor stands and poster presentations
- 1100-1130: The Interpretation of Fingerprint and Footwear Marks Associated with Blood
Michael Barber, SLR Forensics, UK
- 1130-1200: Chemical Treatment of Footwear Impressions in Blood on Fabric
Kevin Farrugia, University of Abertay, UK
- 1200-1215: Additional Research on Chemical Treatment of Footwear Impressions in Blood on Fabric
Kenny Laing, SPSA Forensic Services, UK
- 1215-1345: Lunch (Catering and exhibitions area – Wolfson Hall)**
Opportunity to view exhibitor stands and poster presentations
- 1345-1415: Multimedia Support to BPA Recording at Crime Scenes
TBA, SPSA Forensic Services, UK
- 1415-1500: Case Presentation: Double International Homicide – an Independent Review
Gillian Leak, Principal Forensics, UK
- 1500: Close and Coffee Break**
Final opportunity to view exhibitor stands and poster presentations

Association for Crime Scene Reconstruction 2013 Conference

The 2013 ACSR conference will be held in Atlanta, Georgia from February 7 to 10, 2013. The conference program is still in development and will involve 3½ days of presentations. There are numerous openings for research presentations, case studies, and workshops. There will be three rounds of workshops scheduled, two day-time and one night-time. Tentatively these include: Practical Application of Event Analysis, Alternate Light Source Utilization, Laser Trajectory Documentation, Electro-static Dust-print Lifters, and Laser Scanning stations with both the Leica and Faro systems.

The conference will be held at the Hilton Garden Inn, one mile south of Hartsfield Jackson Airport. The room rate is set at \$99.00 per night. As part of the registration fee, continental breakfast will be provided Tuesday through Friday and lunch will be provided Tuesday through Thursday. Once the contract is finalized, ACSR will provide a link for registration at www.acsr.org. Look for updates as the year progresses. If you have an interest to present, please contact Conference Chair Ross M. Gardner at gardnerross@me.com for further information.

Recent BPA Related Articles in the Scientific Literature

Sant, S.P. and Fairgrieve, S.I., Exsanguinated Blood Volume Estimation Using Fractal Analysis of Digital Images, *J. Forensic Sci.* May 2012, Vol. 57, No. 3, pp. 610-617.

Adams, C. D., Fundamental Studies of Bloodstain Formation and Characteristics, *Forensic Science International*, June, 2012, Vol. 219, Issue 1, pp. 76-87.

Soderquist, T.J., Chesniak, O.M., Witt, M.R., Paramo, A., Keeling, V.A. and Keleher, J.J., Evaluation of the Catalytic Decomposition of H₂O₂ Through Use of Organo-metallic Complexes – A Potential Link to the Luminol Presumptive Blood Test, *Forensic Science International*, June, 2012, Vol. 219, Issue 1, pp. 101-105.

Kneubuehl, B.P., Maximum Flight Velocity of Blood Drops in Analysing Blood Traces, *Forensic Science International*, June, 2012, Vol. 219, Issue 1, pp. 205-207.



Organizational Notices

Moving Soon?

All changes of mailing address need to be supplied to our Secretary Norman Reeves. Each quarter Norman forwards completed address labels for those who are members. Do not send change of address information to the Bloodstain Digest Editor. E-mail your new address to Norman Reeves at:

norman@bloody1.com
Norman Reeves
I.A.B.P.A.
12139 E. Makohoh Trail
Tucson, Arizona 85749-8179
Fax: 520-760-5590

Membership Applications / Request for Promotion

Applications for membership as well as for promotion are available on the IABPA website:
IABPA Website: <http://www.iabpa.org>

The fees for application of membership and yearly dues are \$40.00 US each. If you have not received a dues invoice for 2012 please contact Norman Reeves. Apparently, non US credit cards are charging a fee above and beyond the \$ 40.00 membership/application fee. Your credit card is charged only \$40.00 US by the IABPA. Any additional fees are imposed by the credit card companies.

IABPA now accepts the following credit cards:

**Discover MasterCard
American Express Visa**

IN MEMORIAM

A friend of many IABPA members and former colleague of ours, retired LASD Assistant Crime Lab Director Ron Linhart, passed away on Tuesday, April 10, 2012, in Watkinsville, Georgia, due to complications from bladder cancer. A memorial service was held April 13, 2012, at home church in Georgia. He is survived by his wife and two sons.

A native of Nampa, Idaho, Ron was a graduate of UCLA and UC Riverside and was well known for his experience in crime scene investigations and reconstructions, serology, trace evidence, toxicology, controlled substances, and blood alcohol. He served law enforcement for 34 years as a criminalist, supervisor and manager with the Los Angeles County Sheriff's Department (with a short "sabbatical" to the Coroner's Office from 1982-1988). Ron was among the founding members of IABPA in the 1983 – 1985 era of the organization's formation. His legacy in bloodstain pattern analysis and as part of crime scene reconstructions lives with us today. He was a firm believer in the development of BPA as a valid, scientific discipline. He also believed, and mandatorily required of his co-workers and subordinates, that anyone who attended crime scenes, regardless of their job title and duties, should have a proper introduction to BPA (in paraphrase): you will never look at a crime scene the same way again to the betterment of your duties after this type of education.

Training Opportunities

August 27- 31, 2012
Fluid Dynamics of Bloodstain Pattern Formation Course
Nieuw-Vennep
The Netherlands

For further information contact:

Loci Forensics, B.V.
Flierveld 59
2151 LE Nieuw-Vennep
The Netherlands
Martin Eversdijk
Tel: +31639455563
Renè Gelderman
Tel: +31639455562
Fax: +31(0)20-8907749
E-mail: Info@lociforensics.nl/

September 10-14, 2012
Basic BPA Course
Nieuw-Vennep
The Netherlands

For further information contact:

Loci Forensics, B.V.
Flierveld 59
2151 LE Nieuw-Vennep
The Netherlands
Martin Eversdijk
Tel: +31639455563
Renè Gelderman
Tel: +31639455562
Fax: +31(0)20-8907749
E-mail: Info@lociforensics.nl/

September 10-14, 2012
Advanced Bloodstain Pattern Analysis Course
Ontario Police College
Aylmar, Ontario, Canada

Course Coordinator: Brian Allen
Tel: 519-773-4258
E-mail: brian.allen@ontario.ca
Further Information: www.opconline.ca

**September 17-21, 2012
Fortgeschrittenkurs
Usingen, Germany
(German)**

For further information contact:
Dr. Silke Brodbeck, MD
Blutspureninstitut
Obergasse 20
61250 Usingen, Germany
Tel: +49-170-84 84 248
Fax: +49-6081-14879
E-mail: info@blutspureninstitut.com

**September 17-21, 2012
Advanced Bloodstain Pattern Analysis Course
Boone County Sheriff's Department
3000 Conrad Lane
Burlington, Kentucky**

Hosted by: Boone County Sheriff's Department
and the Kentucky State Police
Instructors: Paul Erwin Kish and Stuart H. James
Further Information contact:
Paul Erwin Kish
Tel: 607-962-8092
Fax: 607-962-2093
E-mail: paul@paulkish.com

**October 1-5, 2012
Basic Bloodstain Pattern Interpretation
Bloodstain Evidence Institute
Corning, New York**

For further information contact:
Herbert Leon MacDonell
Bloodstain Evidence Institute
P.O. Box 1111
Corning, New York 14830
Tel: 607-962-6581
E-mail: forensiclab@stny.rr.com

October 15-19, 2012
Advanced Bloodstain Pattern Analysis Course
Usingen, Germany
(English)

For further information contact:
Dr. Silke Brodbeck, MD
Blutspureninstitut
Obergasse 20
61250 Usingen, Germany
Tel: +49-170-84 84 248
Fax: +49-6081-14879
E-mail: info@blutspureninstitut.com

October 22-26, 2012
Advanced BPA Course
Nieuw-Vennep
The Netherlands

For further information contact:
Loci Forensics, B.V.
Flierveld 59
2151 LE Nieuw-Vennep
The Netherlands
Martin Eversdijk
Tel: +31639455563
Renè Gelderman
Tel: +31639455562
Fax: +31(0)20-8907749
E-mail: Info@lociforensics.nl/

November 26-30, 2012
Visualization of Latent Bloodstain Course
Nieuw-Vennep
The Netherlands

For further information contact:
Loci Forensics, B.V.
Flierveld 59
2151 LE Nieuw-Vennep
The Netherlands
Martin Eversdijk
Tel: +31639455563
Renè Gelderman
Tel: +31639455562
Fax: +31(0)20-8907749
E-mail: Info@lociforensics.nl/

**December 3-7, 2012
Basic Bloodstain Pattern Analysis Workshop**

**Presented by the Specialized Training Unit at the Miami-Dade Safety Training Institute,
Doral, Florida**

Contact: Toby L. Wolson, M.S., F-ABC
Miami-Dade Police Department
Forensic Services Bureau
9105 N.W. 25th Street
Doral, Florida 33172
Voice: 305-471-3041
Fax: 305-471-2052
E-mail: Twolson@mdpd.com

**December 3-7, 2012
Advanced Bloodstain Pattern Analysis Course**

**Hosted by the Johnson County Sheriff's Office
Criminalistics Laboratory
Olathe, Kansas**

Instructors: Paul Erwin. Kish and Stuart H. James
Contact: Paul Erwin Kish
Forensic Consultant and Associates
Tel: 607-962-8092
Fax: 607-962-2093
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Articles and training announcements for the September 2012 issue of the Journal of Bloodstain Pattern Analysis must be received before August 20, 2012

Editor's Corner

The Journal content is improving with the submission of articles for this issue. My thanks to L. Allyn DiMeo and Jane Taupin for their article on arterial bloodstain patterns on clothing and to Elisabeth Williams, Eric Neumann, and Michael Taylor for their article on blood drawing apparatus. I am optimistic that there will be informative research and case report articles for the September issue. There is still ample time for article submission and peer review of the content.

The 2012 IABPA Training Conference in Tucson, Arizona October 2-5 and hosted by Norman Reeves is fast approaching. The program still has room for presentations and workshops.

The 4th European IABPA Conference will be held in Edinburgh, Scotland, UK November 12-14, 2012 will be hosted by Amanda Anne Pirie of the SPSA Forensic Science Laboratory. The content of the scientific presentations and workshops is listed in this issue. Chris Gannicliffe of the SPSA Forensic Science Laboratory in Aberdeen, Scotland has organized a very informative program including workshops. There is still time to register for this conference and enjoy a visit to the city of Edinburgh.

I will be publishing the abstracts of the scientific presentations from both conferences in the December issue of the Journal as I have done with past conferences. I invite the presenters at each conference to submit an article of their presentation for possible publication in our Journal.

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2013 IABPA TRAINING CONFERENCE

San Diego, California USA

FOCUSING ON

SCIENTIFIC RESEARCH IN BLOODSTAIN PATTERN ANALYSIS

Reserve the date, start saving your pennies (Euros, shillings...),
update your visa, arrange for a dog-sitter---whatever it takes.

Just be there!

