

Exhibits to Defendant's 2nd Supplemental Response to Request for Discovery Regarding  
Expert Witnesses

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**EXHIBIT D17-A**  
**David Howell**

David Howell may testify for the defense as an expert regarding Amazon discovery. Mr. Howell's opinion/testimony will be based on his experience, education, and trainings as detailed in his resume which is included with this response as Exhibit D17-C.

This response serves to supplement the information in the Report attached as Exhibit D17-B. The below is a summary of Mr. Howell's anticipated testimony but does not repeat all specific findings that are detailed in his report. It is anticipated that Mr. Howell may testify in the following areas:

1. Amazon Records including how purchases are tracked, account activity, user activity and the scope of Amazon records.

This disclosure is provided as an aid. At the present time, Mr. Howell's full scope of testimony is unknown. The State has not yet disclosed the opinions of their experts.

DAVID G. HOWELL

The Defense discloses David Howell in this Supplemental Discovery Response. His resume is attached as "Exhibit A." His prior testimony as an expert was in the Federal District of Idaho in *U.S. v. Babichenko*, Case No. 1:18-cr-00258.

At Howell & Associates, Mr. Howell specializes in Online Brand Protection, Anti-Counterfeiting, Marketplace Channel Management, and Digital Forensics, guiding brands through the complexities of platforms like Amazon, eBay, Wish, Alibaba, AliExpress, Google Shopping, and others. Mr. Howell's company protects brands and works to eliminate counterfeit threats. Mr. Howell has an extensive work history in the electronic commerce industry in the areas of brand protection, brand strategy, fraud investigations, algorithmic analysis, data manipulation risks, and market practices.

It is anticipated that Mr. Howell of Howell & Associates will testify based on his experience and education as follows:

1. Amazon data requested versus produced, form of data produced, and a forensic examination of the available produced data in this case.
  - o A forensic analysis of whether the dataset is complete, unaltered, and in a format suitable for forensic examination.
  - o Identification of gaps in data provided by the State and how missing elements impact forensic accuracy.
  - o Evaluation of metadata, timestamps, and tracking information within the Amazon data to assess reliability and forensic validity.
2. The importance of full purchase history in an Amazon account to conduct an accurate forensic examination of the data.
  - o A complete forensic review requires examining full purchase history, search logs, recommendation exposure, and product interactions.
  - o Isolated purchases or searches without full historical context can lead to misleading conclusions.
  - o Amazon's data retention and account history logs are critical in determining user behavior trends, purchase frequency, and algorithmic influences.
3. The role of Amazon's Algorithm-Driven Recommendation System and Cross-Platform Tracking.
  - o Amazon's AI and machine learning (ML) systems do not passively reflect searches; they actively shape user experience and influence product visibility.
  - o The Buy Box system prioritizes certain sellers and dynamically adjusts pricing based on AI predictions of consumer behavior.
  - o The Clickstream tracking system records user interaction data, affecting what products are suggested or displayed.
  - o AI-powered algorithms determine rankings, auto-complete searches, and personalize product placement.
  - o Amazon's data models can reinforce specific product categories, repeatedly exposing users to related items based on engagement rather than intent.
4. Omnichannel shopping extends beyond a single device.
  - o Amazon accounts are synchronized across multiple devices, including smartphones, tablets, desktops, laptops, and smart home devices (Alexa, Echo, etc.).
  - o Shared household accounts introduce forensic challenges, as multiple individuals contribute to search history, purchases, and product recommendations.
  - o Cross-device activity tracking allows Amazon to retain behavioral data across different platforms, affecting search results and purchase recommendations.

- Retargeting ads from Google, Facebook, and YouTube further influence Amazon's search suggestions and ad displays.
- 5. The Influence of Amazon's Advertising System on Click and Purchase Behavior.
  - Amazon's advertising ecosystem is deeply integrated into the search and recommendation process.
  - Sponsored listings, retargeting ads, and display ads shape user choices, often overriding organic search results.
  - Unlike a simple "search and buy" experience, Amazon actively pushes promoted content through AI-driven ad targeting.
  - Personalized recommendations are not neutral but based on bidding systems where advertisers pay to appear in a user's feed.
- 6. Amazon's Sponsored Products and Display Ads allow sellers to pay for visibility, impacting product exposure and forensic interpretation.
  - A product can appear in search results not because a user searched for it, but because an advertiser paid for placement.
  - The "Frequently Bought Together" and "Customers Also Bought" sections are influenced by paid sponsorships and algorithmic weighting, not purely organic trends.
  - To properly assess forensic relevance, all Amazon ad data should be reviewed, including:
    - a) What sponsored products were displayed to this account?
    - b) What retargeting ads followed the user across platforms based on past activity?
    - c) Were certain product recommendations organic, or manipulated through paid placements?
    - d) Did Amazon's algorithm repeatedly push certain products based on prior engagement rather than active user searches?
- 7. Cart and Wishlist Data are an important part of forensic examination as it relates to Amazon.
  - The addition, removal, or modification of items in a cart or wishlist provides insight into purchasing intent.
  - Indecision and comparative shopping behaviors are common, and forensic analysis must account for all list interactions.
  - Amazon's AI tracks wishlist and cart activity to refine recommendations and alter subsequent search results.
- 8. In his expert opinion, when evaluating the purchase or search of a product on Amazon as evidence, it is essential to ensure that it is presented in its full context rather than in isolation.
  - Forensic best practices require examining broader user engagement trends rather than isolated transactions.
  - A search or purchase cannot be evaluated without consideration of Amazon's AI-driven content curation and advertising models.
  - Clickstream analysis, browsing history, and algorithmic reinforcement must be considered before attributing a specific intent to an individual search or purchase.
- 9. Many Amazon accounts, including the one in this case, are shared among family members, making it difficult to attribute a single purchase to one specific individual.
  - Amazon does not differentiate between users within a shared account.
  - Without analyzing full account activity logs, it is not possible to determine who conducted a specific search or made a purchase.
  - Device usage history, login timestamps, and behavioral tracking data are critical to accurate forensic conclusions.
- 10. Obtaining and reviewing Amazon data prior to March 2022 is critical to the ability to draw conclusions or put context into any purchasing.
- Pre-March 2022 purchase and search data is necessary to establish historical buying patterns and determine whether a transaction was an anomaly or part of a long-term behavior trend.

- Without earlier records, it is not possible to assess the evolution of search recommendations, AI influences, or external advertising impact over time.
11. The warrants in this case ask for extensive amounts of data and important categories of data, but the data produced by the State does not reflect the whole of the data requested or supposedly produced.
- The limited dataset does not include key forensic elements necessary for a comprehensive analysis, including:
    - a) Sponsored ad exposure records.
    - b) Algorithmic recommendation tracking.
    - c) Complete purchase and browsing history.
    - d) Cross-device usage logs and user attribution data.
  - Without a full forensic dataset, conclusions drawn from the available information lack reliability and are inherently **incomplete**.

## Contact

Meridian Idaho 83646  
208-340-5866 (Mobile)  
dghowell@me.com

[www.linkedin.com/in/davidghowell](http://www.linkedin.com/in/davidghowell)  
(LinkedIn)  
[www.linkedin.com/in/davidghowell](http://www.linkedin.com/in/davidghowell)  
(Portfolio)  
[icannwiki.com/index.php/David\\_Howell](http://icannwiki.com/index.php/David_Howell) (Other)

## Top Skills

E-commerce  
Intellectual Property  
Brand Protection

## Languages

German & Spanish (Limited Working)

# David G. Howell

Brand & Channel Compliance Expert | Author & Podcast Host |  
Pioneer in Marketplace Integrity & Anti-Counterfeiting | U.S. Army  
Veteran | Trusted US Federal Contractor  
Meridian, Idaho, United States

## Summary

As a proud U.S. Army veteran and Boise State University graduate, I've channeled the discipline, leadership, and commitment to excellence honed in military service into a career dedicated to brand protection and channel compliance. My journey from the front lines of service to the forefront of safeguarding brands has spanned over two decades and continues to evolve with every new challenge.

I've had the privilege of working across multiple industries, protecting the reputations and revenue streams of some of the world's most recognized brands. From the trenches at MarkMonitor, Channel IQ, and Vorey's, to founding Howell & Associates, my mission has been clear: to help companies preserve their integrity in the chaotic, ever-changing world of online marketplaces.

At Howell & Associates, we specialize in Online Brand Protection, Anti-Counterfeiting, and Marketplace Channel Management, guiding brands through the complexities of platforms like Amazon, eBay, Wish, Alibaba, AliExpress, Google Shopping, and beyond. Our commitment is to deliver actionable strategies and results that protect brands, eliminate counterfeit threats, and drive revenue growth.

As the host of the "Marketplace Dilemma" podcast, I explore the intersection of brand protection and e-commerce, sharing industry insights, and sparking conversations that matter. I believe in the power of knowledge, collaboration, and the importance of staying ahead of emerging threats.

My career has been about more than just success—it's about creating partnerships rooted in trust, solving problems with military precision, and delivering solutions that stand the test of time. If you're committed to protecting your brand's legacy and navigating the

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DEFENDANT'S  
EXHIBIT NO. D17-C  
IDENTIFICATION / EVIDENCE  
CASE NO. CR01-24-31665  
DATE: 3/3/25

marketplace with confidence, let's connect. Together, we can face the challenges head-on and ensure your brand thrives in a global economy.

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## Experience

### Howell & Associates

Founder

January 2018 - Present (7 years 1 month)

Boise, Idaho, United States

We are a full-service consultancy specializing in Online Brand Protection, Anti-Counterfeiting, and Marketplace Channel Management. Whether it's Amazon, eBay, Wish, Alibaba, Temu, TikTok, Facebook, AliExpress, Google Shopping, or beyond, we're the experts in navigating the complex world of e-commerce platforms. We provide the insights and strategies to protect your brand, manage your channels, and combat unauthorized sellers and counterfeiters across the globe. From strategy to execution, we answer the Who, What, Where, When, Why, and How of safeguarding your online presence. <http://www.HowellandAssociates.com> - Proudly Veteran Owned.

### The Marketplace Dilemma

Founder, Speaker, Blogger, Writer & Podcast Host

August 2022 - Present (2 years 6 months)

United States

Almost Ready!

### Resolution Arms LLC

President - Co-Founder

June 2014 - Present (10 years 8 months)

Meridian Idaho

Resolution Arms is a Federally Licensed FFL/SOT Veteran Owned - Weapon training and custom manufacturing specializing in Military and Law Enforcement specific needs. Proudly Veteran Owned

### Vorys, Sater, Seymour and Pease LLP

Director - Brand Protection

February 2017 - February 2018 (1 year 1 month)

Cincinnati, Ohio

Vorys, Sater, Seymour and Pease LLP provides business and legal counsel to clients throughout the United States and around the world. Since its founding

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in 1909, our firm has grown into one of the largest law firms in the country, with nearly 375 attorneys who are located in seven offices in Ohio, Texas, Pennsylvania and Washington, D.C.

Our firm is proud to represent thousands of clients, who range from start-up businesses to Fortune 500 corporations, from non-profit organizations to governmental entities and industry trade groups, and from individuals needing estate planning advice to defendants embroiled in sprawling, multi-state class action litigation. We offer each of those clients - large and small - an unflagging commitment to excellent legal representation and outstanding client service.

#### Authentic Vision GmbH

Business Advisor - Global Anti-Counterfeiting & Brand Strategy

November 2014 - December 2017 (3 years 2 months)

United States - North America

Leverage substantial industry experience to guide client in expanding business within US markets and become a world leader in brand protection and product authentication technologies to mitigate anti-counterfeiting and diversion on a global level .

Founded in 2012 as an official spin-off from the University of Applied Sciences Salzburg, Authentic Vision is best known for providing new and innovative ways of brand protection. The company holds several patents and is cooperating closely with universities and the world's leading security printing companies to stay abreast of the latest developments in the fields of brand/ value protection and customer communication solutions.

#### Channel IQ

3 years 5 months

Vice President, Brand Strategy

February 2015 - September 2015 (8 months)

Greater Chicago Area

As a brand marketing & channel compliance expert, awarded promotion to position company as a premier provider of online trademark, brand and product intelligence solutions to leading global brands, manufacturers, distributors, and retailers.

Built, aligned, and mobilized a products, sales and delivery teams in creating long-term relationships with clients.

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Combined research with analytical data to generate conceptual ideas for developing a brand strategy which meets or exceeds unique clients' needs.

Spoke at numerous industry conventions and teamed with prominent brands to design a highly effective brand protection program.

Captured 3,000%+ ROI by conducting 15+ webinars to thousands of participants on the topic of problem solving in direct response to market changes.

#### Director of Global Brand Management & Protection

May 2012 - February 2015 (2 years 10 months)

Greater Chicago Area & North American Markets

Successfully established and sold entire brand protection department and including full suite of products and services which played a major role in propelling revenues by \$2.5M and almost doubling customer base from 165 to 300 within two years.

Pioneered industry's first brand protection investigation services program which led to removal and enforcement of 5,000+ illicit product offerings worldwide.

#### CitizenHawk

Senior Regional Manager - Intellectual Property, Brand Protection & Corporate Brand Management

December 2009 - February 2012 (2 years 3 months)

US and Asia Pacific - Regional

Managed sales for corporate brand management/enforcement, online monitoring, and global IP recovery.

Instrumental in reclaiming millions of dollars in lost revenue for highly renowned fortune 500 clients.

Merged cutting-edge technology, an advanced understanding of the Internet, and proficiency in domain management and e-commerce to deliver superior client service.

#### Metamend Online Marketing Experts

Board Advisor - Brand Protection - North America Markets

November 2005 - November 2009 (4 years 1 month)

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#### North America - Victoria British Columbia Canada & US Markets

Advisor on best market practices on brand protection monitoring services and fraud solutions with critical accountability for defining sales processes, compiling accurate forecasts, monitoring industry climate, and providing regular feedback to executive leadership team.

Directed in the Hiring, trained, mentored, and motivated sales personnel in delivering unparalleled customer service to maximize account retention.

Determined staff compensation and orchestrated incentive programs to elevate morale and performance.

#### MarkMonitor

Senior Manager – Intellectual Property, Brand Protection, Corporate Brand Management

May 2001 - June 2007 (6 years 2 months)

Brought on board to fuel revenues for start-up company offering comprehensive, end-to-end solutions which enable clients to establish and defend brands against online threats.

Collaboratively evolved MarkMonitor from a simple domain registration company to a global leader in corporate domain portfolio management; expanded services to include brand protection, fraud protection and monitoring, trademark management, anti-counterfeiting, and phishing protection.

Proactively educated clients in online vulnerability of IP and products, formulated strategic sales plans, identified trends, prepared forecasts and annual budgets, analyzed variances, and initiated swift corrective action to control expenses.

Devised standards for production, quality and customer-service, while cultivating and maintaining excellent rapport with key customers.

Leveraged sales plan and quotas for multiple districts to attain and expand customer base.

Coached, mentored, and counseled district sales representatives to achieve productivity targets.

Explored new product opportunities and services, uncovered consumer needs and trends, and closely monitored competitive activity to launch compelling tactics and promotions for winning new business.

## US Army

### Sergeant

November 1989 - July 1997 (7 years 9 months)

United States

I proudly served in the U.S. Army, with my primary MOS as 13M (MLRS M270 Field Artillery), where precision, tactical execution, and strategic thinking were key to mission success. Throughout my military career, I was stationed across the U.S., Europe, and Korea, and deployed in major operations including Desert Storm, Bosnia, and Haiti.

I also served as a 68W (Combat Medic). Additionally, I held the MOS of 31D (CID) in Germany, conducting investigations and supporting military justice.

With a Top Secret security clearance, I was entrusted with sensitive missions and operated across diverse and challenging international settings. These experiences have ingrained in me the values of duty, leadership, and adaptability, which continue to guide my professional endeavors today.

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## Education

### Boise State University

Bachelor of Arts (B.A.), Political Science · (1995 - 1999)

**EXHIBIT D18-A**  
**Gary Shutler, Ph.D.**

Dr. Gary Shutler may testify for the defense as an expert regarding DNA testing and lab practices. Dr. Shutler's opinion/testimony will be based on his experience, education, and trainings as detailed in his curriculum vitae which is included with this response as Exhibit D18-C.

This response serves to supplement the information in the Report attached as Exhibit D18-B. The below is a summary of Dr. Shutler's anticipated testimony but does not repeat all specific findings that are detailed in his report. It is anticipated that Dr. Shutler may testify in the following areas:

1. Analysis of DNA and DNA lab practices
2. CODIS database.

This disclosure is provided as an aid. For further information about his opinion, please see Dr. Shutler's Expert report filed herewith.

2/20/2025

Gary Shutler, Ph.D  
Forensic DNA Consultant  
29622 4<sup>th</sup> Avenue S.  
Federal Way, WA  
98003  
[ggschs@hotmail.com](mailto:ggschs@hotmail.com)

Anne C. Taylor  
Anne Taylor Law Offices  
PO Box 2347  
Coeur d'Alene, Idaho  
83816  
[Anne@AnneTaylorLaw.com](mailto:Anne@AnneTaylorLaw.com)  
Phone – (208) 512-9611

#### **Idaho v Brian Kohberger**

I have been retained by the defense in Mr. Kohberger's case to assist on issues relating to DNA testing and lab practices.

#### **Forensic Biology/DNA Experience**

I hold a 1975 B.Sc (Honours) from the University of Manitoba, a 1977 M.Sc. (Microbiology) from the University of Manitoba and a 1993 Ph.D. (Microbiology and Immunology) from the University of Ottawa, Ontario. My work experience includes 16 years (from 2002 to 2018) as the DNA Technical Leader/Manager, Washington State Patrol, Crime Laboratory Division with responsibility for all Forensic Biology/Serology and DNA Technical and Training manuals, validations and the DNA Quality Assurance System. My previous positions include casework and support service with the Royal Canadian Mounted Police (RCMP) Forensic Laboratory System in the Ottawa and Winnipeg Laboratories. In the mid to late 1980's, I initiated the RFLP DNA Typing program for the RCMP prior to taking a period of educational leave. During the mid to late 1990's my work included validation studies of PCR STR analysis and its initial casework application for the RCMP in Canada. I was involved with the genetic and physical mapping of the myotonic (muscular) dystrophy gene at the Children's Hospital of Eastern Ontario while completing my Doctorate Degree from the University of Ottawa in 1992.



I have been an independent forensic DNA consultant since approximately October, 2018. I have been qualified as an expert, had reports accepted and/or testified regarding DNA and/or Forensic Biology/Serology matters in over 200 court cases in multiple venues. I have retained memberships in several professional societies and have authored or co-authored many peer reviewed scientific publications, served on many committees including SWGDAM, NIJ Forensic DNA Panel TWG and as an OSAC Scientific Technical Review Panel Chair.

**Materials Received and Basis of Opinions Formulated:**

There were 10 Discovery submissions received in 2023 and 8 in 2024. These submissions included 95 Folders, 31 Sub-Folders, containing about 696 PDF files with over 15,000 of Redacted and Unredacted pages and over 13,000 photos, 375 JPEG files, 159 email files and DNA data files. My opinions were formulated by examining these materials for information relevant to the Forensic Biology screening and DNA analysis work conducted in the investigation. These discover materials included DNA analysis data along with the lab reports, analyst notes and worksheets from the ISP Forensic lab. The ISPFS Biology DNA Casework Methods Rev12, Biology DNA Quality Manual-rev-11, Evidence Procedures Manual rev2 and Quality Manual rev8 were also accessed.

**The above documents were reviewed as requested by counsel and Opinions were formulated.**

- 1) I summarized and organized the results from the Biology and DNA Reports, reanalyzed the DNA run data and reviewed analyst notes, worksheets and reports for any significant shortcomings (mistakes, omissions, etc.). No significant, impactful issues were observed in the protocols and procedures used.
- 2) Overall the ISPFS DNA analysis lab work, in my opinion, was done to a high standard. However, documentation in the casefile was poor. Notes for evidence examination had minimal detail of how items were examined. This issue of concern was evident in the lack of detail documented about how the knife sheath was co-examined at the time of the Biology and Latent Prints examination. The only description on the swabbing of the front strap was for the Biology notes stating "Used 1 swab to swab front strap (=Item 1.1, v light gray transfer to swab, consumptive)." Both the Latent Print lab notes for Tina Walthall and the Biology Lab notes for Stephanie Wilt's did not have the detail of Rylene Nowlin's December 12-13, 2022 emails, to Detective Talbott, on how the knife sheath was examined and swabbed to preserve potential latent print evidence on the top of the snap cap. It required Ms. Nowlin to contact one of the forensic scientists to put all that detail together to respond to the inquiry from Detective Talbott on how that exhibit was processed. It certainly wasn't in either the latent print or biology notes from the discovery material examined. Good documentation can prevent problems of this nature and help mitigate memory lapses. There were also at least 9 male DNA reference



samples collected but not typed. They might have matched to unknown male B or D and provided pertinent information to help with the investigation.

- 3) There are limitations of what information the Forensic Biology and DNA evidence analysis results can provide. To understand the DNA evidence in this homicide case investigation it is helpful to consider the following questions, in particular, for the only DNA profiles reported that were recovered from inside crime scene evidence that were not consistent with any of the victims. It is not unreasonable to expect that the perpetrator(s) of such a violent crime would have left traces of DNA and possibly blood.
- a. Whose Unknown DNA was recovered from the DNA evidence? There were only 2 unknown male DNA profiles reported that were recovered from the inside crime scene evidence that were not consistent with the victim Ethan Chapin. One was called unknown male A from the Item 1.1, swab of the front strap on a KA-BAR knife sheath (found close to a victim's body), of which only the defendant cannot be excluded as the contributor. The other was called unknown Male B from Item 30, a swab of a small red stain on the underside of the stair handrail, north wall, between the 1st and 2nd floors (ISPFS Crime Scene marker/identifier B) that excluded all 18 males who had their reference samples collected and tested. This presumed bloodstain's location was near presumed bloodstains, Item 31.1, (ISPFS Crime Scene marker/identifier D) found to be consistent with victim Ethan Chapin and presumed bloodstains Item 72 on the north wall of stairwell and 73 on the half-wall (ISPD2 Crime Scene marker/identifier 23 and 26 respectively) that were reported to be consistent with victims Kaylee Goncalves and Madison Mogen. Refer to photos in references for position information.
  - b. What body fluid/cell material did the DNA come from? No body fluid testing of the Item 1.1, swab of the KA-BAR knife sheath front strap, was reported. A positive presumptive test for blood was reported from the Item 30, a swab of a small red stain underside of the stair handrail, north wall, between the 1st and 2nd floors.
  - c. When did the male DNA get deposited? There are no reliable, widely adopted tests to determine when DNA from biological material was deposited. In this case, neither of the Item 1.1, swab of the KA-BAR knife sheath front strap male DNA profile or the Item 30, a swab of a small red stain underside of the stair handrail male DNA profile exhibited severe degradation often associated with old deposits of biological material.



- d. How did the male DNA get deposited? The DNA recovered from Item 1.1, swab of the KA-BAR knife sheath front strap could have come from direct contact if from skin cells and/or by deposits of body fluids with DNA content such as

saliva and/or sweat. There is no confirmatory test or standardized set of factors to support that a specific sample was deposited by direct means versus indirect means. A Probabilistic mathematical approach would be required to evaluate one activity as opposed to the other.

The DNA recovered from the presumed bloodstain on underside of the stair handrail, north wall, between the 1st and 2nd floors (Item 30) must have been deposited after some minor injury by direct contact or indirect contact (secondary transfer), but it cannot be determined if the DNA recovered was deposited passively (before the crime) or actively (during the crime).

- 4) There were missed opportunities with the Combined DNA Index System (CODIS). The number of perpetrators involved in committing this complex crime is unknown. It would have been prudent to have considered that more than 1 of the unknown male profiles might be involved and use CODIS to help answer that question as a case approach strategy by the lead law enforcement agency instead of assuming only 1 possible perpetrator. Only unknown male A was searched and uploaded to the National DNA Index System (NDIS) database. Furthermore, not all Forensic unknown DNA profiles are eligible for the NDIS upload and would only be in the State DNA Index System (SDIS). Manual or one time keyboard searches can be done with Forensic unknown DNA profiles that have a minimum of at least 6 original CODIS core loci and a moderate match estimate (MME) of at least 60,000 as calculated by the CODIS software. Laboratory to laboratory one time search requests can be done between NDIS participating laboratories to search SDIS databases from neighboring states. No manual search requests appear to have been made for any of the unknown male profiles A, B or D.

#### References:

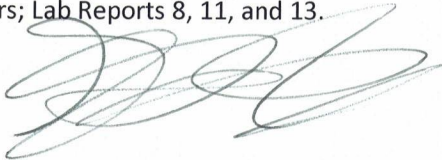
PDF Photos 2577- 2580, 3734, 3720 (in Discovery folders 2.7.23 and 2.11.23) for ISP Lab Item 72 - collected by Payne/Hogan/Talbott- ISPD2 Marker #23; North wall of stairway area between 1<sup>st</sup> and 2<sup>nd</sup> floors; See Lab Reports 11, 22 and 26.



PDF Photos 3720, 3722, 3729 (in Discovery folder 2.11.23) for ISP Lab Item 30 – collected by Youngling/Barie – ISPFs Marker B; bottom of handrail on North wall of stairway area between 1<sup>st</sup> and 2<sup>nd</sup> floors; See Lab Reports 8, 11, 13.

PDF Photos 2584, 3734 (in Discovery folder 2.11.23) for ISP Lab Item 73 – collected by Payne/Hogan/Talbott – ISPD2 Marker #26; half wall of stairway area between 1<sup>st</sup> and 2<sup>nd</sup> floors; Lab Reports 11, 22 and 26.

PDF Photos 3731 – 3733 (in Discovery folder 2.11.23) for ISP Lab Item 31.1 – collected by Youngling/Barie – ISPFs Marker D; top edge of half wall of stairway area between 1<sup>st</sup> and 2<sup>nd</sup> floors; Lab Reports 8, 11, and 13.

A handwritten signature in black ink, appearing to read 'G. Shutler', with a stylized, cursive script.

Gary Shutler, Ph.D  
Forensic DNA Consultant

**CURRICULUM VITAE**  
**GARY G. SHUTLER, Ph.D.**

**February 2022**

**BUSINESS ADDRESS:**

Forensic DNA Consulting - Independent  
29622 4<sup>th</sup> Avenue S  
Federal Way, WASHINGTON  
98003

**TELEPHONE:**

(253) 802-6006 (cell)

**E-MAIL:**

GGSCBS@hotmail.com  
Winnipeg1@comcast.net

**DEGREES:**

**Ph.D. (Microbiology and Immunology)**, University of Ottawa, Ontario, 1993  
**M.Sc. (Microbiology)**, University of Manitoba, 1977  
**B.Sc. (Honours)**, University of Manitoba, 1975

**THESES:**

**Genetic and physical mapping of the myotonic dystrophy locus on human chromosome 19q13.3.**, Ph.D. Thesis, University of Ottawa - 1992.

**The effects of experimental inflammation on adaptive synthesis of rat liver fatty acid synthetase.**, MSc. Thesis, University of Manitoba - 1977

**FORENSIC CASEWORK EXPERIENCE AND COURT TESTIMONY:**

**Forensic DNA Typing**, over 200 DNA cases completed; court testimony provided in Ontario, Manitoba and British Columbia and Washington State.

**Forensic Serology** - over 400 cases completed; court testimony provided in Manitoba, Northwest Territories, Ontario and Nova Scotia.

**EMPLOYMENT HISTORY:**

10/18 – present

Private Consultant work

05/02 – 10/18

**DNA Technical Leader**  
**Washington State Patrol**  
**Crime Laboratory Division**  
Seattle, WA

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DEFENDANT'S  
EXHIBIT NO. D18-C  
IDENTIFICATION / EVIDENCE  
CASE NO. CR01-24-31665  
DATE: 3/3/25

10/95 - 05/02

**IC Biology Section**  
**R.C.M.P. F.L.W.,**  
 Winnipeg, Manitoba

10/92 - 10/95

**Molecular Genetics Specialist**  
**R.C.M.P. C.F.L.,**  
 Biology Operations  
 Ottawa, Ontario

09/88 - 10/92

**Educational Leave**  
**Ph.D. Graduate Student,**  
 supervisor Dr. R.G. Korneluk  
 Department of Microbiology and Immunology  
 University of Ottawa, Ottawa, Ontario

08/85 - 09/88

**IC Operational Support Serology,**  
**R.C.M.P. C.F.L.,**  
 Ottawa, Ontario

05/78 - 08/85

**Forensic Serology Laboratory Specialist**  
**R.C.M.P., Forensic Laboratory Winnipeg,**  
 Winnipeg, Manitoba

05/77 - 05/78

**Understudy in Forensic Serology**  
**R.C.M.P., Forensic Laboratory Winnipeg,**  
 Winnipeg, Manitoba

11/76 - 03/77

**Microbiologist**  
**Production Control Laboratory,**  
 Calverts of Canada (div. of Seagrams),  
 Gimli, Manitoba

## **AWARDS**

1/17

**Chief's Coin for grant management activities - WSP**

11/15

**Commendation and Chief's Coin - WSP**

02/98

**Forensic Laboratory Services Directorate Certification of Appreciation**

02/94

**Commissioner's Commendation for Outstanding Service**

## **Quality Assurance Training & Experience**

- Certified Technical Assessor – ASCLD/LAB-International program since 06/03/2008
- FBI DNA Auditor Refresher Training 04/30/2009
- FBI DNA Auditor Refresher Training 02/20-21/2006
- ASCLD/LAB – International Assessor Training Course 12/05-09/2005
- FBI DNA Auditor Training 10/15-16/2003
- AOAC, Mid Canada Section - Laboratory Accreditation to the ISO 17025 Standard 05/30-31/2001
- AOAC, Mid Canada Section - Method Validation and Measurement of Uncertainty Workshops 05/30-31/2001

## **Management Certification**

- Middle Management Certification – Washington State Criminal Justice Training Commission 10/2014
- Middle Management Certification – Washington State Patrol, Academy, Shelton, WA 10/2014

## **Membership in Professional Societies & National Committees**

- OSAC Scientific & Technical Review Panel Chair – 06-08/2021
- American Academy of Forensic Science – fellow
- Canadian Society of Forensic Science – member and past Biology Section Chairperson
- Northwest Association of Forensic Sciences - member
- International Society for Forensic Genetics – member
- American Society of Human Genetics – past member
- American Association for the Advancement of Science – member
- NIJ Forensic DNA TWG – member
- SWGDAM – Body Fluid Identification Working Group member 2018-19
- SWGDAM – member from 07/2002 to 04/2010
- SWGDAM – invited guest 07/1999

## **SCHOLARLY & PROFESSIONAL ACTIVITIES**

- |               |                                                                                  |
|---------------|----------------------------------------------------------------------------------|
| 9/14-16/2020  | <b>International Symposium on Human Identification,</b><br>Virtual               |
| 2/7-8/2018    | <b>NIJ Forensic DNA Technology Working Group meeting,</b><br>Arlington, Virginia |
| 11/13-14/2017 | <b>DNA Technical Leader Meeting at the CODIS Conference,</b><br>Norman, Oklahoma |
| 10/2-5/2017   | <b>International Symposium on Human Identification,</b><br>Seattle, Washington   |
| 11/14-16/2016 | <b>DNA Technical Leader Summit at the CODIS Conference,</b><br>Norman, Oklahoma  |
| 10/25-26/2016 | <b>NIJ Forensic DNA Technology Working Group meeting,</b><br>Arlington, Virginia |

9/26-29/2016 **International Symposium on Human Identification,**  
Minneapolis, Minnesota

6/09/2016 **Promega Technology Tour,**  
Seattle, Washington

11/16-17/2015 **DNA Technical Leader Summit at the CODIS Conference,**  
Norman, Oklahoma

10/23/2015 **Washington State Bar Association - 22nd Annual Criminal Justice Institute,**  
Burien, Washington

09/14-15/2015 **NIJ Forensic DNA Technology Working Group meeting,**  
Arlington, Virginia

05/04-08/2015 **DNAView Training,**  
Seattle, Washington

2/17-21/2014 **American Academy of Forensic Sciences, Annual Meeting**  
Seattle, Washington

11/20-21/2013 **2013 DNA Technical Leader Summit for Public Forensic Laboratories**  
Norman, Oklahoma

09/15-20/2013 **Northwest Association of Forensic Sciences Fall Meeting**  
Vancouver, Washington

7/29-31/2013 **Green Mountain DNA Conference**  
Burlington, Vermont

7/19/2012 **Laboratory Workflow and Rapid DNA Advisory Group, Promega**  
Denver, Colorado

05/8-11/2012 **Canadian Society of Forensic Science, Annual General Meeting,**  
Simon Fraser University, Burnaby, British Columbia

04/29-30/2012 **Fast DNA Focus Group, Morpho/ZyGEM/Lockheed Martin**  
Mesa, Orange County, California

03/27-28/2012 **NIJ Forensic DNA Technology Working Group meeting,**  
Arlington, Virginia

01/06/2012 **Annual Review of DNA Data Accepted at NDIS**  
FBI-NDIS on-line

09/26-27/2011 **Northwest Association of Forensic Sciences Fall Meeting**  
Tacoma, Washington

07/19-21/2011 **8th International Conference of Forensic Inference and Statistics**  
UW, Seattle, Washington

07/18/2011 **Statistical Methods for DNA Evidence – short course**  
Offered at 8th International Conference of Forensic Inference and Statistics, UW, Seattle

Washington

06/20/2011 **Eleventh Annual DNA Grantee's Workshop**  
Arlington, Virginia

02/21/2011 **American Academy of Forensic Sciences, Annual Meeting**  
Chicago, Illinois

01/06/2012 **Annual Review of DNA Data Accepted at NDIS**  
FBI-NDIS on-line

12/8-9/2010 **California Association of Criminalists, Advanced DNA Mixture Interpretation Workshop**  
Cal State/LAPD/LASD, California

12/6-7/2010 **California Association of Criminalists, Advanced DNA Mixture Interpretation Workshop**  
UC Davis, California

06/29/2010 **Advisory Group on Forensics – Promega Inc.**  
Atlanta, Georgia

06/14/2010 **Tenth Annual DNA Grantee's Workshop**  
Arlington, Virginia

02/25/2010 **American Academy of Forensic Sciences, Annual Meeting**  
Seattle, Washington

01/22/2010 **Annual Review of DNA Data Accepted at NDIS**  
FBI-NDIS on-line

01/11/2010 **SWGDM Meeting participant; Mixture interpretation committee**  
Fredericksburg, Virginia

09/28/2009 **Forensic YSTR Training Course – practice and theory of YSTRs**  
Marshall University

09/21/2009 **National Governor's Association - Centre for Best Practices "Sustaining Forensic DNA Programs" Workshop – Washington, D.C.**

07/22/2009 **ABI HID Roadshow**  
Seattle, Washington

07/12/2009 **SWGDM Meeting participant; Mixture interpretation committee**  
Fredericksburg, Virginia

04/30/2009 **FBI DNA Auditor Training refresher**  
Raleigh, North Carolina

02/02/2009 **Leadership in Police Organizations – 3 week course**  
WSP Academy – Shelton, WA.

01/22/2009 **Postconviction DNA testing Case Management Symposium – presenter**  
Palm Harbor, Florida

01/13/2009 **SWGAM Meeting participant; Mixture interpretation committee**  
Fredericksburg, Virginia

12/30/2008 **Annual Review of DNA Data Accepted at NDIS**  
FBI-NDIS on-line

12/09/2008 **Mixture Deconvolution and Statistics** – conducted a training workshop  
for the Harris County Medical Examiner's Crime laboratory

11/13/2008 **SWGAM Meeting participant; Mixture interpretation committee**  
Bethesda, Maryland

11/3-9/2008 **Northwest Association of Forensic Sciences Fall Meeting**  
Boise, Idaho

08/12/2008 **ABI HID Roadshow**  
Seattle, Washington

07/14/2008 **SWGAM Meeting participant; Mixture interpretation committee**  
Fredericksburg, Virginia

06/17/2008 **Enhanced Sperm Elution and Fast Differential Extraction Seminar**  
Orchid Cellmark Inc. on-line

06/03/2008 **Certification as Technical Assessor – ASCLD/LAB**

05/15/2008 **Audit/site visit to Orchid Cellmark Inc Dallas outsourcing DNA lab**  
Dallas, Texas

05/13/2008 **In-State Workshop - NGA Center for Best Practices "Improving Forensic DNA Policy Project"**  
Seattle, WA

02/25/2008 **Annual Review of DNA Data Accepted at NDIS**  
FBI-NDIS on-line

02/19/2008 **American Academy of Forensic Sciences, Annual Meeting**  
Washington, D.C.; meeting and participant in Mixture Interpretation Workshop

01/08/2008 **SWGAM Meeting participant; Mixture interpretation committee**  
Fredericksburg, Virginia

09/17/2007 **National Governor's Association - Centre for Best Practices "Improving Forensic DNA Policy Project" Workshop** – Miami, Florida

07/17/2007 **SWGAM Meeting participant; Mixture interpretation committee**  
Manassas, Virginia

06/22/2007 **Washington Association of Prosecuting Attorneys Meeting**; presented "Mitochondrial DNA Typing, What Technology Can Offer," Chelan, Washington

06/15/2007 **ASTAR - Language of the Sciences Regional West/Northwest Boot Camp Event One in**

the National Resource Judge Program; presented "DNA and Criminal Forensics,"  
University of Washington School of Law

|            |                                                                                                                |
|------------|----------------------------------------------------------------------------------------------------------------|
| 01/08/2007 | <b>SWGAM Meeting participant; Serology/Evidence Screening sub-committee</b><br>Fredericksburg, Virginia        |
| 09/17/2006 | <b>Advanced DNA Training Course – 3130 CE GeneMapperID and 7500 Quantifiler</b><br>Marshall University         |
| 07/10/2006 | <b>SWGAM Meeting participant; Serology/Evidence Screening sub-committee</b><br>Fredericksburg, Virginia        |
| 06/26/2006 | <b>Sixth Annual DNA Grantee's Workshop</b><br>Washington D.C.                                                  |
| 06/06/2006 | <b>ABI HID Roadshow</b><br>Seattle, Washington                                                                 |
| 03/13/2006 | <b>NEST Project workshop</b><br>Marshall University                                                            |
| 02/22/2006 | <b>AAFS meeting and workshops</b><br>Seattle, Washington                                                       |
| 02/20/2006 | <b>FBI DNA Auditor's Refresher Course</b><br>Seattle, Washington                                               |
| 01/10/2006 | <b>SWGAM Meeting participant; Serology/Evidence Screening sub-committee</b><br>Fredericksburg, Virginia        |
| 12/5/2005  | <b>ASCLD/LAB – International Assessor Training Course</b><br>Seattle, WA                                       |
| 11/14/2005 | <b>NWAFS Conference</b><br>Seattle, Washington                                                                 |
| 11/07/2005 | <b>NIJ Missing Persons Training</b><br>Denver, Colorado                                                        |
| 06/30/2005 | <b>SWGAM Meeting participant; Serology/Evidence Screening sub-committee</b><br>FBI Academy, Quantico, Virginia |
| 01/17/05   | <b>SWGAM Meeting participant; Serology/Evidence Screening sub-committee</b><br>FBI Academy, Quantico, Virginia |
| 09/23/04   | <b>ABI HID Roadshow; presenter</b><br>Anaheim, CA                                                              |
| 09/23/04   | <b>ABI HID Roadshow; presenter</b><br>Berkeley, CA                                                             |
| 07/12/04   | <b>SWGAM Meeting participant; Serology/Evidence Screening sub-committee</b><br>FBI Academy, Quantico, Virginia |

- 06/28/04 **Fifth Annual DNA Grantee's Workshop; presenter**  
Washington D.C.
- 02/16/04 **American Academy of Forensic Sciences, Annual Meeting**  
Dallas, TX.
- 01/04/04 **SWGDM Meeting participant; Serology/Evidence Screening sub-committee**  
FBI Academy, Quantico, Virginia
- 07/15/03 **SWGDM Meeting participant; Serology/Evidence Screening sub-committee**  
FBI Academy, Quantico, Virginia
- 06/23/03 **Fourth Annual DNA Grantee's Workshop**  
Washington D.C.
- 01/14/03 **SWGDM Meeting participant; Serology/Evidence Screening sub-committee**  
FBI Academy, Quantico, Virginia
- 07/09/02 **SWGDM Meeting participant; Serology/Evidence Screening sub-committee**  
FBI Academy, Quantico, Virginia
- 05/02– present **Technical Manager/Leader – Washington State Patrol Crime Laboratory Division**
- 05/01 **Laboratory Accreditation to the ISO 17025 Standard and Method Validation and Measurement of Uncertainty Training – Mid-Canada Section of the Association of Analytical Chemists**
- 10/95 – 05/02 **Technical Manager/Leader – Biology, RCMP Forensic Laboratory Winnipeg**
- 07/11/99 **SWGDM Meeting participant; STR Interpretation Guidelines sub-committee**  
FBI Academy, Quantico, Virginia
- 02/99 – 06/99 **Biology Staffing Committee member - RCMP**
- 10/17-20/98 **Behavioural Based Interview Techniques Training – Canadian Police College**
- 11/93 - 10/95 **Research Associate in Molecular Genetics at CHEO**

## **TEACHING EXPERIENCE:**

**PHG 302 Forensic Genetics** – School of Public Health, University of Washington, Guest Lecturer explaining how CODIS works.

**FORENSIC USE OF PCR ANALYSIS WORKSHOP** - Canadian Society of Forensic Science and Northwest Association of Forensic Scientists joint meeting, Vancouver, B.C., 94-11-01-02, Guest lecturer.

**MIC 8227 (BCH8327) Frontiers in Molecular Biology** (3h session/year) - University of Ottawa, Guest lecturer.

**MIC 8224 Laboratory Demonstrator in Medical Microbiology** (for Medical and Graduate Students) - University of Ottawa, 1988/89 to 1989/90.

## **PUBLICATIONS:**

### **Papers in Refereed Journals**

**Shutler, G.G.**, Langstaff, J.M., Jamieson, J.C. and Burton, D.N. (1977) The effects of experimental inflammation on adaptive synthesis of rat liver fatty acid synthetase. *Arch. Biochem. Biophys.*, 183, 710-717, 1977.

**Shutler, G.G.** (1980) A study on the inter-relationship between fingerprint developing techniques and bloodstain identification and characterization. *Can. Soc. Forens. Sci. J.*, 13, #2, 1-8.

**Shutler, G.G.** and Dawson, D.E. (1980) Characterizing human seminal fluid in the ABO, Lewis and Phosphoglucomutase typing systems. *Can. Soc. Forens. Sci. J.*, 13, #3, 11-15.

**Shutler, G.G.** and Dawson, D.E. (1981) Concentration of limited quantity bloodstains and seminal fluid stains. *Can. Soc. Forens. Sci. J.*, 14, #1, 15-21.

**Shutler, G.G.** and Tompkins, D.C. (1988) Bloodstain characterization in the EAP, Hp, Hb, AK and Glol typing systems using minigels and the Phastsystem. *Forens. Sci. Int.*, 39, 97-104.

Williams, R.E., **Shutler, G.G.** and R.G. Korneluk (1988) "DNA Technology and DNA Fingerprinting in Forensic Science", in *New Technologies and Penal Justice*, Vol. 9. Proceedings of the 38th International Course in Criminology, International Centre for Comparative Criminology, University of Montreal Press. pp. 230-286.

Waye, J., Presley, L., Budowle, B., **Shutler, G.**, and Fournay, R. (1989) A simple and sensitive method for quantifying human genomic DNA in forensic specimen extracts. *BioTechniques*, 7, #8, 852-855.

Budowle, B., Waye, J., **Shutler, G.**, and Baechtel, F.S. (1990) A suitable restriction endonuclease for RFLP analysis of biological evidence samples. *J. Forensic Sci.*, 35, 530-536.

**Shutler, G.G.**, MacKenzie, A.E., Brunner, H., Wieringa, B., de Jong, P., Lohman, F.P., Leblond, S., Bailly, J. and Korneluk, R.G. (1991) Physical and genetic mapping of a novel chromosome 19 ERCC1 marker showing close linkage with myotonic dystrophy. *Genomics*, 9, 500-504.

Suhr, L.C., **Shutler, G.G.** and Korneluk, R.G. (1991) Simple rapid detection of PCR hetero duplexes in DNA mutations and polymorphisms. *Clin. Chem.*, 37, 2142.

Tsilfidis, C., MacKenzie, A.E., **Shutler, G.G.**, Leblond, S., Bailly, J., Johnson, K., Shelborn, P., Williamson, R., Siegel-Bartelt and Korneluk, R.G. (1991) D19S51 is closely linked with and maps distal to the myotonic dystrophy locus on 19q. *Am. J. Hum. Genet.*, 49, 961-965.

Aslanidis, C., Jansen, G., Ameniya, C., **Shutler, G.G.**, Tsilfidis, C., Mahadevan, M., Chen, C., Alleman, J., Wormskamp, N.G.M., Vooijs, Buxton, J., Johnson, K., Smeets, H.J.M., Lennon, G.G., Carrano, A.V., Korneluk, R.G., Wieringa, B. and de Jong, P.J. (1992). Cloning of the essential myotonic dystrophy region and mapping of the putative defect. *Nature*, 355, 548-550.

**Shutler, G.**, Korneluk, R.G., Tsilfidis, C., Mahadevan, M., Bailly, J., Smeets, H., Wieringa, B., Lohman, F., Aslanidis, C. and de Jong, P.J. (1992) Physical mapping and cloning of the proximal segment of the myotonic dystrophy gene region. *Genomics*, **13**, 518-525.

Jansen, G., de Jong, P.J., Amemiya, C., Aslanidis, C., Shaw, D.J., Harley, H.G., Brook, J.D., Fenwick, R., Korneluk, R.G., Tsilfidis, C., **Shutler, G.**, Hermens, R., Wormskamp, N.G.M., Smeets, H.J.M. and Wieringa, B. (1992) Physical and genetic characterization of the distal segment of the myotonic dystrophy area on 19q. *Genomics*, **13**, 509-517.

Mahadevan, M., Tsilfidis, C., Sabourin, L., **Shutler, G.**, Ameniya, C., Jansen, G., Neville, C., Narang, M., Barcelo, J., O'Hoy, K., Leblond, S., Earle-MacDonald, J., de Jong, P., Wieringa, B. and Korneluk, R.G. (1992) Myotonic dystrophy mutation; An unstable trinucleotide repeat in the 3' untranslated region of the gene. *Science*, **255**, 1253-1255.

**Shutler, G.G.**, MacKenzie, A.E. and Korneluk, R.G. (1994) The 1.5 Mb region spanning the myotonic dystrophy locus shows a uniform recombination frequency. *Am. J. Hum. Genet.*, **54**, 104-113.

Roy, N., Mahadevan, M., McLean, M., **Shutler, G.**, Yaraghi, Z., Baird, S., Besner-Johnston, A., Lefebvre, C., Kang, Xiaolin, Salih, Maysoon, Aubry, H., Tamai, K., Guan, X., Ioannou, P., Crawford, T., de Jong, P., Surh, L., Ikeda, J.-E., Korneluk, R. and MacKenzie, A. (1995) The gene for neuronal apoptosis inhibitory protein is partly deleted in individuals with spinal muscular atrophy. *Cell*, **80**, 1-20.

**Shutler, G.**, Glassco, T., Kang, X., Korneluk, R. and Mueller, C. R. (1996) Genomic structure of the human D-site binding protein (DBP) gene. *Genomics* **34**, 334-339.

**Shutler, G.**, Gagnon, P., Verret, G., Kalyan, H., Korkosk, S., Johnston, E. And Halverson, J. (1999) Removal of a PCR Inhibitor and Resolution of DNA STR Types in mixed human-canine stains from a 5 year old case. *J. Forensic Sci.* **44**(3), 623-626.

Sweet, D. and **Shutler, G.** (1999) Analysis of Salivary Evidence From a Bite Mark on a Body Submerged in Water. *J Forensic Sci.* **44**(5), 1069-1072.

Miller Coyle, H., **Shutler, G.**, Abrams, S., Hanniman, J., Neylon, S., Ladd, C., Palmbach, T. and Lee, H. (2003) A Simple DNA Extraction Method for Dried Leaf and Seed Samples of *Cannabis sativa* L. *J. of Forensic Sci.* **48**(2) 343-347.

**Shutler, G.** And Roy, T. (2012) Genetic anomalies consistent with gonadal mosaicism encountered in a sexual assault-homicide. *Forensic Sci. International Genetics*, **6**(6), e159-160.

Bright, J.A. et al, STRmix™ collaborative exercise on DNA mixture interpretation – (2019) *Forensic Sci. International Genetics*, **40**, 1-8. <https://doi.org/10.1016/j.fsigen.2019.01.006>

## Books

**Shutler, G.**, *An Overview of Historical Developments in Forensic DNA Analysis*, in *Forensic Botany – Principles and Applications to Criminal Casework*, ed. Heather Miller Coyle, CRC Press, 2005.

Palmbach, T. and **Shutler, G.**, *Legal Considerations for Acceptance of New Forensic Methods in Court*, in *Forensic Botany – Principles and Applications to Criminal Casework*, ed. Heather Miller Coyle, CRC Press, 2005.

## Refereed Short Reports

**Shutler, G.**, Leblond, S., Bailly, J., MacKenzie, A.E., Tsilfidis, C. and Korneluk, R.G. (1991) An insertion polymorphism identified by the probe pE0.8 (D19S115) at 19q13.3. *Nucleic Acids Res.*, 19, 1159.

**Shutler, G.**, Tsilfidis, C., Leblond, S. and Korneluk, R.G. (1991) RFLP identified by the probe pKE0.8 (D19S117) at human chromosome 19q13.3. *Nucleic Acids Res.*, 19, 1158.

Korneluk, R.G., Tsilfidis, C., **Shutler, G.**, Mahadevan, M., Bailly, J. and Surh, L. (1991) A three allele insertion polymorphism is identified by the human chromosome 19q13.3 probe pKE0.8 (D19S119). *Nucleic Acids Res.*, 19, 1157.

Tsilfidis, C., **Shutler, G.**, Leblond, S. and Korneluk, R.G. (1991) A SstI RFLP detected by the probe pKE2.1 (D19S116) localized to human chromosome 19q13.3. *Nucleic Acids Res.*, 19, 1158.

Tsilfidis, C., **Shutler, G.**, Mahadevan, M. and Korneluk, R.G. (1991) A frequent HincII polymorphism identified by the human chromosome 19q13.3 probe pKEX0.8 (D19S118). *Nucleic Acids Res.*, 19, 1157.

## Abstracts

**Shutler, G.G.** (1982) The evaluation of semen detection methods in the absence of spermatozoa for rape investigations. *Can. Soc. Forens. Sci. J.*, 15, #3/4, 178.

**Shutler, G.G.** (1985) Detection of native indian variant markers (Gc, Tf, Alb) in dried bloodstains. *Can. Soc. Forens. Sci.*, 18, #3, 145.

**Shutler, G.G.** and Tompkins, D.C. (1986) Evaluation of the PhastSystem<sup>™</sup> for bloodstain analysis. *Can. Soc. Forens. Sci.*, 19, #4, 263.

**Shutler, G.G.** and Tompkins, D.C. (1986) A preliminary study on the application of DNA fingerprinting for bloodstains in criminal cases. *Can. Soc. Forens. Sci. J.*, 19, #4, 263.

**Shutler, G.G.**, Macey, H.L., and Tompkins, D.C. (1987) Characterization of Bloodstains by PGM subtyping utilizing the PhastSystem<sup>™</sup>. 11th meeting of the International Association of Forensic Science, Vancouver, B.C.

**Shutler, G.G.** and Tompkins, D.C. (1987) The development of standardization protocol for ABO grouping of blood and body fluid stains by ELISA technology. (*ibid*)

**Shutler, G.G.** and Tompkins, D.C. (1987) An evaluation of casework material for suitability of analysis by recombinant DNA techniques. (*ibid*)

**Shutler, G.G.**, Monteith, N. and Korneluk, R.G. (1988) Influences on RFLP's generated by alteration of prehybridization and hybridization conditions. *Genome* 30 (suppl. 1), 236.

Korneluk, R.G., Leblond, S., **Shutler, G.G.**, Bailly, J., Tsilfidis, C. and MacKenzie, A.E. (1990) Linkage disequilibrium between myotonic dystrophy (DM) and an extended chromosome 19 haplotype in French Canadians. *J. Neurol. Sci.*, 98, 38.

Korneluk, R.G., Tsilfidis, C., **Shutler, G.G.**, Leblond, S., Bailly, J., MacLeod, H., Lahey, D. and MacKenzie, A.E. (1990) Two distinct chromosome 19 haplotypes show linkage disequilibrium with myotonic dystrophy (DM) in a

French Canadian population. *Am J. Hum. Genet.* **47**, A186.

**Shutler, G.G.**, Leblond, S., Earle, J., de Jong, P. and Korneluk, R.G. (1990) Rapid chromosome walking toward the myotonic dystrophy gene by an ALU based PCR technique. *Am. J. Hum. Genet.*, **47**, A262.

Tsilfidis, C., MacKenzie, A.E., **Shutler, G.G.**, Leblond, S., Bailly, J., Johnson, K., Davies, J., Buxton, J. and Korneluk, R.G. (1990) A recombinant event maps the DNA probe p134c telomeric to the myotonic dystrophy (DM) locus on 19q. *Am. J. Hum. Genet.*, **47**, A202.

Jansen, G., de Jong, P., Voovs, M., Aslanidis, C., Korneluk, R.G., **Shutler, G.**, Wormskamp, N., Smeets, B., Ropers, H.H. and Wieringa, B. (1991) Genetic and physical definition of the myotonic dystrophy gene region. *Am. J. Hum. Genet.*, **49**, A405.

Korneluk, R.G., Bailly, J., **Shutler, G.G.**, Tsilfidis, C., Mahadevan, M., Neville, C., Narang, M., Foitzik, M. and MacKenzie, A.E. (1991) Progress in cloning the myotonic dystrophy gene. *Am. J. Hum. Genet.*, **49**, A404.

**Shutler, G.G.**, Tsilfidis, C., Neville, C. and Korneluk, R.G. (1991) Characterization of a CpG rich island from a region of human chromosome 19q13.3 which contains the myotonic dystrophy (DM) gene. *Am. J. Hum. Genet.*, **49**, A2370.

Tsilfidis, C., Neville, C., MacKenzie, A.E., **Shutler, G.**, Mahadevan, M., and Korneluk, R.G. (1991) Haplotype analysis of a French Canadian myotonic dystrophy (DM) population suggests the DM gene is contained within a 350 Kb region of chromosome 19q13.3. *Am J. Hum. Genet.*, **49**, A2036.

Sabourin, L.A., Mahadevan, M., Narang, M., **Shutler, G.G.** and Korneluk, R.G. (1992) Myotonic dystrophy: transcriptional repression of the DM kinase in affected individuals is not an immediate effect of CTG trinucleotide expansion. *Am. J. Hum. Genet.*, **51-4**, A400.

**Shutler, G.G.**, MacKenzie, A.E., Neville, C., Mahadevan, M., Tsilfidis, C., Jansen, G., de Jong, P., Wieringa, B. and Korneluk, R.G. (1992) Correlation of the consensus genetic and physical maps of the myotonic dystrophy (DM) region. *Am. J. Hum. Genet.*, **51-4**, A400.

Roy, N., McLean, M., Besner, A., Salih, M., **Shutler, G.**, Korneluk, R.G. and MacKenzie, A. (1993) Isolation and characterization of yeast artificial clones (YAC) in the spinal muscular atrophy gene region of 5q13. *Am. J. Hum. Genet.*, **53-3**, A1353.

**Shutler, G.**, Roy, N., McLean, M., Sukhdeo, A., Stoddart, K., Kang, X., Yaraghi, Z., Besner, A., Baird, S., Ikeade, J., Korneluk, R. and MacKenzie, A. (1994) Characterization of a cDNA clone that maps to the critical region of spinal muscular atrophy (SMA) locus of 5q13. *Am. J. Hum. Genet.*, **55-3**, 1919.

McLean, M., Roy, N., Tamai, K., **Shutler, G.**, Yaraghi, Z., Salih, Lefebvre, C., Besner, A., Aubry, H., Surh, L., de Jong, P., Korneluk, R., Ikeada, J. and MacKenzie, A. (1994) isolation of cDNA clones from within the spinal muscular atrophy (SMA) disease gene region. *Am. J. Hum. Genet.*, **55-3**, 2190.

Fourney, R.M., Freageau, C.J., Bowen, K.L., **Shutler, G.G.**, Elliott, J.C., Klevan, L., Hartley, J., Hu, and Carmody, G.R. (1995) STR match criteria: An evaluation of the precision and measurement window for STR loci using internal molecular weight standards and automated fluorescent detection. Sixth international Symposium on Human Identification, Scottsdale, Arizona.

Fourney, R.M., Freageau, C.J., Bowen, K.L., **Shutler, G.G.**, Elliott, J.C., Roussy, P.D. and Carmody, G.R. (1995) Interpretation guidelines for fluorescent automated detection of STRs: Defining the allele and limits of detection. Sixth international Symposium on Human Identification, Scottsdale, Arizona.

Embil, J. **Shutler, G.**, Abrams, S., AL-Barrak, A., Dyck, B., Olekson, K., McLeod, J. and Nicolle, L. (1999) Assaying for the presence of blood in multi-dose local anesthetic vials. The Canadian Journal of Infectious Diseases, 10D, 86.

**Shutler, G.** (2003) Cannabis DNA Typing, A Review of. Canadian Society of Forensic Science Annual General Meeting, Vancouver, BC.

**Shutler, G.**, Copp, T. and Chau, J (2004) Studies of PCR Inhibition, American Academy of Forensic Sciences, Annual Meeting, Dallas, TX.

**Shutler, G.** (2004) Interpretation of DNA Quantification Results Using Quantifiler™ Kits and the ABI PRISM® 7000 Sequence Detection System, ABI Road show, Berkeley and Anaheim, CA

**Shutler G.**, Hodge P., Gauthier J., Currie J. (2004), Interpretation of human DNA quantification results from the Applied Biosystem Quantifiler™ kits and PRISM® 7000 Sequence Detection system. NIJ DNA Grantees Meeting, Washington, D.C.

**Shutler, G.**, **DNA and Criminal Forensics** (2007) ASTAR - University of Washington School of Law, Language of the Sciences Regional West/Northwest Boot Camp, Event One in the National Resource Judge Program, Seattle, WA.

Butler, J., **Shutler, G.** Gross, A., Carmody, G., Dolph, A., Sgueglia, J. and Kalafyt, T. DNA Mixture Interpretation: Principles and Practice in Component Deconvolution and Statistical Analysis (2008) Workshop – American Association of Forensic Sciences 60<sup>th</sup> Anniversary Meeting, Washington D.C.

**Shutler, G** (2008) Improvement of Real Time PCR DNA Quantification Using NIST 2372, NorthWest Association of Forensic Science meeting, Boise, ID.

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