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The ISHI Report

News from the World of DNA Forensics

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The ISHI Report

Letter from the Editor

Greetings from Madison, Wisconsin.

We hope this edition of the ISHI Report finds your well. The team is excited to share a diverse round up of articles ranging from current topics in the news to career and leadership advice from seasoned forensic experts.

Our colleague Jordan Nutting dives into the under reported story of the Tulsa Race Massacre. Just over a century ago the city of Tulsa was rocked by an attack on the black residents of the city which devastated entire city blocks, destroyed buildings, houses and businesses and resulted in the death of hundreds of black residents. Through the persistence of survivors, community members and truth tellers, this story is finally being told. Award winning journalist DeNeen Brown, whose family in Tulsa was affected by the massacre will open ISHI 33 with a powerful retelling of the events leading to the tragedy.

Fast forwarding to current events, Alexandra Quinton, a Research Associate from the University of Canberra explores the current sentiment surrounding the use of Investigative Genetic Genealogy and commercial DNA databases to solve criminal cases. As more cold cases are being solved with IGG, the support of the public and law enforcement agencies will be critical to establishing guidelines for when and how to use the technology.

Our long-time friend and forensic science thought leader Bruce Budowle, reflects back on his career on the occasion of his “retirement” from the University of North Texas Center for Human Identification. The advances in forensic science that Bruce has witnessed over the course of his career are truly staggering. Bruce will be discussing how next generation sequencing can help with sexual assault investigations during a workshop at ISHI on Thursday, November 3.

Many people who are in leadership positions in forensic laboratories have arrived in their positions without the benefit of formal management training. Years ago, Brian Hoey found himself managing a team and struggling to provide effective coaching and leadership. He shares his hard-won insights and philosophy on leading a team through challenging times. We also learn more about challenges specific to forensic biology from Julie Sikorsky and Pam Marshall.

Finally, we are pleased to introduce a new group of ISHI Student Ambassadors who will be participating in the 33rd International Symposium on Human Identification. These students have demonstrated a strong resolve and commitment to advancing the field of forensic science. You’ll be inspired by their stories and their future aspirations.

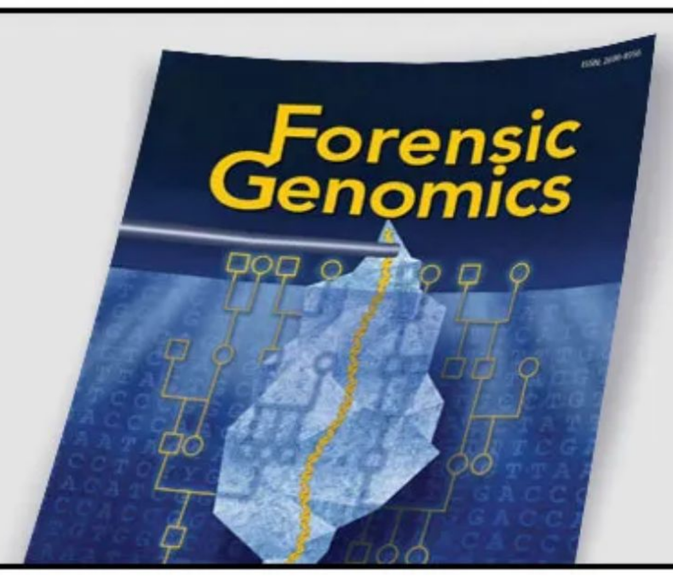
We hope that you enjoy this edition of the ISHI Report and as always invite your comments and written contributions.

The Editorial Board

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Leading the Lab: Insights from Those in Managment

Tara Luther, Promega

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While the work of those in the field of forensic DNA is highlighted multiple times per day in various media publications, those who lead the teams are rarely mentioned. In a field like forensic science, where daily decisions have large consequences, it's imperative that we have strong leaders, but the current process for hiring for leadership positions has some serious flaws.

Brian Hoey, Lab Director at Missouri State Highway Patrol, expounds on this, "In this field, we have people who have studied for years, four years at minimum (six years a lot of times) in a very difficult, challenging major (like chemistry or biology). [They read] journals and really immerse themselves in being a good biologist or a good chemist. Then we put them on the bench and they're a biologist or a chemist for years, where they further immerse themselves by reading journals and attending meetings to build their scientific acumen up. Then at some point, we need leaders to lead work groups. So, we then take these people who are really good scientists, and we suddenly say, 'You're going to lead people.' But then we don't give them as much training as they need to be effective. You don't have the four years of a bachelor's degree or two years of a graduate degree in leadership."

When Brian first joined the Missouri State Highway Patrol, he had no plans to stay there long. Growing up in Chicago, forensic DNA was in its infancy when he attended graduate school in the late 1980's. A talk by a guest lecturer sparked his interest in the field so much so that changed his trajectory and began doing similar work. He was being done in crime labs at the time. After graduating, he found that there were few open jobs for forensic DNA analysts and decided to take a gamble on Missouri after an advertisement caught his eye. That was almost 30 years ago.

Though he started as a bench scientist, over the years he has worked as a DNA Technical Leader, Supervisor, and now Director, and he'll be the first to tell you that there were some hard lessons learned along the way. "I screwed up a lot of people. I made a lot of mistakes, and I broke a lot of people because I was not aware of the needs of people and how to do goal attainment with the needs of the organization. I was not aware of people's growth needs in so far as, if they're low growth and just want to make widgets, or you can overload them with things. I overloaded people and broke them. I put people on different tasks and broke them."



According to a Gallup poll, only 10% of people possess the inherent talent to be a leader, and that number could be less in any given field. For Brian, like so many others, that meant he had to do something different. "The first lesson in leadership I had to learn was to invest in me. If I'm not good at what I do, and I'm not being the best leader I can be or learning how to improve my skills, I'm going to break people. And these people are not going to be good for me or my organization."

He says that through the struggles, and inevitable turnover, something dawned on him. "How did I get to be such a good DNA person? I went to school for four years and got a biology degree. And I went for two years and got a master's degree. To be a good leader, I am probably going to have to invest that much or similar amount of time in my leadership. I decided to get a master's in business. I changed course in the meetings that I attended. I stopped going to general meetings and started to go to leadership conferences."

Over time, Brian's hard work began to pay off and he has discovered a passion to help educate and prepare upcoming leaders. "I started to get better at what I did. I stopped breaking people and started doing a lot better at my job. So now it's become my latter career goal mission to not allow other supervisors to make the same mistakes as I did, or at least if they make those mistakes, help coach them through it and get them to have that 'aha moment' a lot faster than I did."

Julie Sikorsky is the Forensic Biology Manager at the Palm Beach Sheriff's Office. Like Brian, she never intended to be a forensic scientist, but planned to follow in her father's footsteps to become a doctor, inspired by the difference he was making in people's lives. Her career trajectory took a turn mid-way through her bio-chemistry major when she realized that medicine no longer felt like her calling. During a biochemistry lab class focusing on RFLP, she was assigned to draft a report on techniques used during the class. Scouring the library led her to a book on DNA Fingerprinting by Lauren T. Kirby that described using RFLP on DNA, and she was hooked. A family friend who worked at the San Diego Police Department offered to give Julie a tour of the crime laboratory where she was told to focus on PCR. Later that day, she changed her major to molecular biology and never looked back.

Like Brian, Julie has found holes in the training available to forensic scientists, "No one prepares us for [leading]. There is no steppingstone. The forensic community has gotten better in general about offering leadership workshops and trainings [ASCLD does a really nice job], but there are still gaps." To help fill those gaps, Julie co-chaired a workshop at ISHI 32 to provide leadership training and discuss the unique challenges that forensic DNA laboratories face. Her co-chair for that workshop was Pam Marshall, Director of the Master's in Forensic Science and Law Program at Duquesne University in Pittsburgh, Pennsylvania, as well as the Director of the Cyril H. Wecht Institute of Forensic Science.

As with many who joined the DNA field in its infancy, Pam never thought she'd have a career in forensic science. Like Julie, Pam was a pre-med student who had already completed her MCAT and had a lifelong dream of working with children as a pediatrician. Then came the O.J Simpson trial in 1994. It was the first court case in her lifetime that had been televised from start to finish and she didn't miss a minute. She recorded the trial on VHS and raced home between classes to "watch Henry Lee talk about blood on socks." Like Julie, she fell in love with RFLP, changed her career path, and never looked back. Though she currently works in the academic space, Pam does have five years of experience as a casework analyst.

When asked about common challenges that were brought up during the workshop, Pam says they're similar to any other field: time, resources, and money. Julie adds to this, "Every forensic laboratory has accreditation standards that they need to comply with, but forensic biology has a unique extra layer of the cake where we have the quality assurance standards. We also have more grant opportunities, making managing grants a complicating factor. Our training is incredibly long, so when we lose people, that has a detrimental effect. And everybody wants DNA on their cases, so we are struggling with backlogs, along with a myriad of other things that we have to deal with."

Just how long is training? Julie says that training efficiently is a particular problem, because "it takes us a minimum of about 18 months (on average) to fully train a DNA analyst, and that's just the DNA training part. Some laboratories are more successful at training than others, but [it's a challenge]. How do you train and still have people doing casework? Typically, your trainers are coming off casework to train, [which causes other struggles]."



Brian has felt similar challenges in his lab. "A term I hear a lot these days, in both forensic world and the business world is building an airplane in flight. And that's kind of what you're trying to do; you're trying to figure out how to bring all these things on board and trying to keep all these balls in the air… The challenge is that, particularly in DNA, the field is changing so rapidly that it's very challenging for us to figure out which basket to put our eggs in. Are we going to talk about rapid DNA? Are we going to go massively parallel sequencing, or next generation sequencing, or SNPs. All these other things that are happening are just very challenging to a garden variety crime lab. When they're just trying to solve crimes… Backlogs are growing, cases are becoming more and more complex with mixtures and sensitivity, and scientists are challenged at the bench. It's a very challenging time in our science with just so many paths and so many priorities for us to handle. And we're still, in so far as forensic laboratories, we're still operational. We still have backlogs. We still have cases. We still have court dates coming up, et cetera."

Adding additional stress to those in leadership roles are priorities assigned to them by government officials. "We have a backlog of thousands of sexual assault kits. That was our attorney general and our government's priority. They prioritize that for us. The legislature last year went out and gave us a million dollars for rapid DNA instruments, 'We want you to start doing rapid DNA.' That became a priority." He says, as a leader, "What I don't want to do is start bringing all these other things board and just really break my people, because they're almost broken as it is right now. But those are the challenges. You have operational challenges. You have futuristic challenges. And [as a leader], you have to set your folks up to be able to find the right lane to be in. And sometimes this is the priority today and that's the priority tomorrow."

With the stress brought on by new technologies, Pam says that another common theme expressed during the workshop was keeping staff motivated. "[In our workshop], we really tried to get to the heart of why all of us are in this position, which is to serve. Julie provided a great overview of servant leadership and what that truly means. Our mission at Duquesne is simple. It's serving God through serving students, so that they, in turn, can serve others. I believe, really, at the heart of every crime lab, you have that same type of mission. We are serving others every single day, so [it's important] to find the joy again."

Brian echoes these sentiments and will be the first to tell you that despite the challenges that come from working in a leadership role, there are numerous benefits as well. "Being leader is a gift. It's a gift to watch other people develop, and to see them make the same mistakes that you did and be in a position to be able to coach them through those, and to help them know that they're not alone. When somebody does have that 'aha moment' it is really rewarding and fulfilling. And I think that's why I stick at it. I like to see those light bulbs come on."

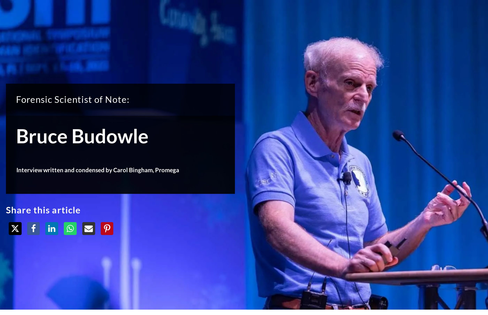
So what advice do those folks have for others considering stepping into a leadership position? Pam says, "Start to build your own network [of leaders] and try to remember one of the best supervisors that you've had in your career and really try to emulate some of those same qualities. Who provided that encouragement? Who provided that support? How did they deliver clear and defined expectations for your job? I think that when you look back, we all have someone that comes to mind immediately that we really enjoyed working for and working with."

Julie takes a more practical approach, "One of my favorite sayings is 'if you don't measure it, you can't manage it.' It's very important, especially with legislative initiatives or budgetary confines, if you need a new piece of equipment, have that data and how to prepare it and be able to pitch that to your crime lab director, who in turn pitches it to someone else so that you can successfully get the resources that you need." And "Communicate, communicate, communicate.. And just when you think you have the right communication, you need to communicate more."

Brian reiterates that it's important to never stop learning. "You just have to carve out time to learn. And sometimes when you're a leader, it's not about you, it's about the people you lead. And sometimes you must make sacrifices for those people. So, there were many evenings and Saturdays and Sundays that I was watching a lot of TED Talks, or reading books, and trying to work on my leadership acumen. I put down the Michael Connelly and John Sanfords and went for the Simon Sineks and started reading more leadership stuff. So, it's about making that sacrifice because you owe it to the people you lead. You owe it to those people. And when you're attentive to their needs, you owe it to them to be the best version of yourself and the best leader you could be."

And finally, Julie offers a bit of advice for all considering the forensic DNA field, "It's a passion. It's a career. A profession. It's not a job. You have to be wedded to this. This is something where every day is not going to be good, but there's some good in every day and you have an important role to play where you can't, yourself, have a bad day, because everything you're doing is precious and there's so much impact that you have. So, think carefully. You really have to have a calling. You have to be willing to make sacrifices to expose yourself to the underbelly of society and be able to see the beauty of what you're doing and what you're bringing to the people that you serve."

If you're in a leadership role, consider attending *The New Superior – A Better Way to Be the One in Charge* workshop led by John Collins on Monday, October 31st. In this workshop, our facilitators will challenge what it means to be a superior and encourage participants to develop new attitudes and strategies for being more effective and trustworthy in how they lead and manage their people. Participants will undergo a Gallup Global Strengths assessment and learn how their individual strengths create both advantages and disadvantages in how they interact with a wide variety of people, including scientists, criminal justice professionals, and police commanders. Through expanded self awareness, our attendees will grow their effectiveness as leaders working in the complex arena where science meets the arbiters and enforcers of law.



Forensic Scientist of Note:

Bruce Budowle

Interview written and condensed by Carol Bingham, Promega

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We chatted with Dr. Bruce Budowle about the long and illustrious career that the has enjoyed in forensic science. Bruce has been a true pioneer in the field and continues to be a champion for advancing the science and using its power to advance the cause of justice.

How did you become involved in DNA forensics? What year was that?

That is a complex question to answer. I first became involved in forensics in 1980 as a postdoctoral fellow at the University of Alabama at Birmingham. As a side project, I had developed a method to detect protein variants in hair. Members of the local crime lab and the University's forensic science department heard about the work and came by to discuss it. I showed the work (which never was described further) but was asked to provide training on serum protein and enzyme genetic markers what were the precursors to DNA. I was hooked ever since.

In 1982, the FBI laboratory advertised for a research position and with some urging from some members of ASCLD I applied for the position. I started in 1983, and I guess the rest is history.

I had the main responsibility to bring DNA typing online at the FBI. As far as DNA the FBI began in earnest in late 1985 and early 1986. The interest began because of work in the US at a private company – LifeCodes - and the research by Ray White's team at the Howard Hughes Medical Institute in Salt Lake City. Both groups were quite open with their work and offered to assist us. Indeed, I spent a month in Utah learning their methods and growing the probes to detect the VNTR (single locus) markers of interest. These markers from Ray White's lab would form the core of what started initially in the US system. At the same time word came out about the work by Alec Jeffreys and the British Home Office that had been used to analyze sexual assault evidence. The case (sexual assault and murder of two teenage girls) showed that casework analysis was feasible; it also was the launching point and motivation for the FBI to commit the resources necessary to develop, validate and implement its first DNA technology (in 1988) known as RFLP typing.

I should mention that the FBI also looked at PCR early on but focused on RFLP typing as the latter was deemed a more robust technology at the time. That was the right decision. It would take 2-4 years more before PCR-based technologies were developed sufficiently and genetic systems such as HLA-DQA1, Polymarker, and D1S80 were implemented.

What were the early days like? How have things changed?

The early days were quite busy and hectic, which may in some ways not be so different than today. I would say we did not have the time and luxury to ponder on what would be the impact of this new technology/field of forensic DNA typing. We realized its importance but were consumed with developing and validating the method, setting guidelines for use, starting and running TWGDAM (the precursor of SWGDAM), beginning the development of CODIS, and going to court to support the validity of the methodology in numerous Frye hearings (and later also in Daubert hearings).

Technology-wise, RFLP was relatively insensitive compared with today's methods, required (initially) radioisotope labeling of probes (in-house) and because of the process took several weeks to obtain a multiple locus profile all being manually generated. Of course, today trace samples can yield results, the statistics can be staggering, many steps are automated, and kits for the suite of markers are commercially available. Lastly, while there are still issues raised in the courtroom (and other venues), the sheer number of admissibility hearings has lowered substantially indicating the groundwork that we laid formed the scientific basis to support validity and helped to promote the field as a gold standard in the forensic sciences.

Reflecting on the field, are you surprised with how quickly technology has advanced?

We are coming up on almost 40 years since the field was initiated. I am not sure (in some respects) that what took almost 4 decades could be considered advancing quickly. But given the slow to change approach (for good reasons) of forensic scientists, where we are today in some respects is quite amazing. We can analyze samples that are invisible to the eye, we can develop investigative leads in criminal cases using CODIS, we can help identify human remains to support humanitarian efforts, we have software that facilitates interpretation to assist the analyst, and we now see that massively parallel sequencing can help solve cases that have not been resolved for years. The technical possibilities that present themselves today provide capabilities that could not be thought of as possible in the 1980s and early 1990s. Consider that one can sequence an entire human genome in a single laboratory in a few days and it does not cost a billion dollars- that is remarkable. It shows that more ways are available and will continue to become available to support criminal investigations, exonerate the innocent, and bring resolution to victims, families and communities, etc. Of course, all these technological advancements require training, validation, implementation, and addressing privacy issues, which also need to advance concomitantly.

Where do you think technology is leading the field?

We already see where it is leading. Increased casework demands and higher expectations by stakeholders of successful outcomes in a timely fashion. Kits with more markers that can be analyzed simultaneously with current platforms. New platforms such as desktop sequencers offering alternate platforms and throughput capabilities. More probabilistic genotyping software (and refinement of the software) to assist in interpretation of DNA profiles, especially mixtures. Expansion of types of evidence that may yield lead value. Eventually, an expansion of databases to accommodate data beyond STRs. More intelligence being gleaned using forensic science. Lastly, there will be more automation, especially with massively parallel sequencing.

Can you foresee a time when STRs analysis is replaced as the standard method for sample analysis?

If science does its job of developing better methods and better ways to interrogate DNA, then definitely STRs will be replaced. I do not see a full replacement happening soon as the current systems are robust and as mentioned above it takes time to change things in the forensic field. But as newer technologies, such as massively parallel sequencing or some as of yet technology to be invented, become well-defined, validated, user friendly, and offer capabilities that substantially improve analyses they will be embraced and eventually replace current methods – just as STRs and capillary electrophoresis replaced RFLP, VNTRs, dot blots, D1S80, and slab gels.

To move forward, we do need to assess the databases we have and how well they function. One limitation the community has is that it sees the large number of profiles at NDIS as a barrier to change. But we do need to think beyond today and what do we want to be able to do 10-20 years from now and beyond. CODIS is a remarkable tool, and it has assisted in many cases. But it does not assist in all cases, and we should think about how to enhance lead development. In some ways, the reference profiles in the database (around 20 million) are a depreciating commodity. There is strong evidence that crime tends to be committed by younger people. Therefore, it is reasonable to consider that, for example, profiles placed in the database 20 years ago hit proportionately less than profiles that are more recently entered. If so, then the older profiles are not contributing to investigative leads as newer profiles are. The FBI should perform a study to determine how the number of hits to age of profile to age of donor trend. It could be extremely informative for future investments and decision making. We should start thinking of developing strategies where the DNA data in databases are appreciating to benefit more with database usage. Of course, newer approaches require resources and time to commit to them and we have to consider the data and especially privacy, but some of those issues are being addressed in some states (see Maryland as an example).

How many students have you worked with over the years? What have those students gone on to do? Do they keep in touch?

I have worked with many (thousands) students throughout my career starting with training scientists on serology (in the early 1980s at the FBI) and DNA (from the late 1980s at the FBI) to educating law enforcement and the judiciary to more formalized education at the University (for the past thirteen years). In academia I mentored directly eight Masters students, 10 doctoral students, and nine postdoctoral fellows. All have gone on to productive careers - some in industry, some in academia, some in government (such as crime labs or public health), and some have gone on to medical school. I have been lucky that my students over the academic portion of my career were extremely talented and quite remarkable, and there was no doubt they all would do great things. I have kept in touch with many of the people I have taught and mentored, but not as often as I would like. I often hear from my former students during the holidays and get to see some at the national and international forensic genetics conferences. It is always good when we catch up.

What will you miss most in retirement?

I do not think I am going to miss too much in retirement, because leaving one job does not mean that I will stop working. I now just have the freedom to focus on issues that I believe are most important, such as combatting Human Trafficking. However, I will miss seeing my friends and colleagues who I saw almost every day. They are more like part of my family. Hopefully, I will see some of them at ISHI later this year.

What legacy do you hope to leave behind?

I really have not thought about a legacy. As time goes on, the work we did to build and formalize the field of forensic genetics/genomics will be forgotten and what will be remembered is the more recent work by those advancing the field at the current time. Perhaps, if anything, that leading by example is important with the most important characteristics of honesty, integrity, empowerment, hard work, commitment, innovation (always looking ahead to see what can be done to be better), and helping others. I hope that people believe that I exemplified these characteristics and will follow in similar ways.

What are you looking forward to doing in retirement?

Some of the same things I always have done – continue to contribute the field. But also to have some time for family - especially my adorable grandchildren.

Will you still be involved in the field going forward?

Yes. There are so many things to accomplish, and opportunities abound. As mentioned above one area I would like to focus is combatting Human Trafficking, and we all should consider becoming involved. We have experienced a pandemic (COVID-19) for more than two years and now there is talk of considering the virus as endemic. Human Trafficking is another pandemic that subjugates millions of people per year, and these people overwhelmingly live in poor, horrendous conditions with little hope of a viable future. We should all be aware that Human Trafficking is not occurring solely in some far away land; it is occurring in our neighborhoods and soliciting/exploiting our children. We should never accept Human Trafficking as endemic and need to combine our skills and experience to find ways to help the victims, interdict the traffickers, and punish the consumers of this distasteful plague on humanity.

It has been our pleasure to work with Bruce over the last 30-plus years. As he continually reminds us, Bruce has the distinction of being the only person to have attended every ISHI. He will continue the trend this year with a presentation at the Using Next-Generation Sequencing (NGS) to Improve Sexual Assault Investigations Workshop on Thursday, November 3.

Thank you, Bruce and congratulations, on your semi-retirement.

Do the Public Support Police Using Consumer DNA Databases in their Investigations?

Alexandra R. Quinton, Research Associate, University of Canberra

Sally F. Kelty, Criminologist and Senior Lecturer in Applied Psychology, University of Canberra

Nathan Scudder, Adjunct Associate Professor, University of Canberra, Australian Federal Police

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This article summarizes recent research into what the public think about police having access to and using Investigative Genetic Genealogy in their cases. In this research we explore whether public opinions change based on attitudes towards the law, courts and police, retributive punishment alignment and different crime type scenarios.

Consumer/private DNA databases were established to help consumers trace their family trees or obtain predictions about health. Despite this original purpose consumer DNA databases have also been used as a valuable tool in police and forensic investigations. Most notably, the high-profile case of the Golden State Killer brought the use of consumer DNA databases within investigations into public awareness. As with the Golden State Killer case and National DNA Program for Missing Unidentified Persons, consumer DNA databases have helped police identify serial killers or long-term unidentified human remains.

Using consumer databases for criminal or coronial investigations has created ethical and legal debates around the degree of consumer consent provided. This has also highlighted a need to balance public safety and policing with civil liberties and privacy. Specifically, the use of consumer DNA databases by police in several high-profile cases (like the Golden State Killer) emphasized a lack of understanding from the general public in how any DNA samples they provided to private genealogy organisations could be used by police [1]. It is therefore vital that before law enforcement agencies routinely are allowed access to consumer DNA in investigations, they need to better understand whether the public support this use of DNA, and if so whether there is more support in different types of police investigations.

In our recent research we carried out a general population study exploring public attitudes and support towards the police being allowed to use consumer DNA databases in five different crime type scenarios. These included homicide, sexual assault, unidentified human remains, robbery and illicit drug use. Though robbery and illicit drug use fall outside the current terms and conditions for GEDmatch and FTDNA law enforcement use, they were included in the scenarios to allow for comparisons between violent and non-violent crimes. Our international sample comprised of 438 adults, the majority of whom were female. Almost two thirds of the sample resided in Australia with other responses predominantly from Europe, the United Kingdom and the United States.

Our study aimed to explore the relationship between positive attitudes towards police use of private DNA and whether these positive attitudes were influenced by people's beliefs about retributive punishment. Retributive punishment and justice theory proposes that society has a responsibility to punish perpetrators of crimes to the severity of the crime they have committed [2]. Under this theory there is a belief that this form of retribution is necessary to promote justice and lower recidivism rates [3].

We used a two-part survey that included demographic questions and three questionnaires focused on attitudes towards retributive punishment and attitudes to law, courts and police. We also designed a set of five crime vignettes describing hypothetical circumstances involving different crime types (homicide, sexual assault, unidentified human remains, illicit drug use and robbery). The vignettes were developed specifically to measure public attitudes towards the police using consumer DNA databases to further their investigations, noting that two of the case studies (illicit drug use and robbery) were not included – and aren't expected to be permitted – under current terms and conditions for access to FTDNA and GEDmatch.

The results showed that there was higher public support for use of consumer DNA databases in violent crimes. These results showed that our participants were more supportive of police accessing consumer DNA databases in the three more serious crime types we measured, namely, sexual assault (83.5%), homicide (83.2%) and unidentified human remains (85.2%). These results were also in line with some previous research by Dundes [4] and Curtis [5] who found greater support for DNA retention for those convicted of serious crime types like sexual assault and homicide.

The results also explored whether people with more positive attitudes towards the law, courts and police (LCP), and higher retributive punishment attitudes (RPJ) could predict higher acceptability for police usage of consumer DNA databases in investigations. The results from a multiple linear regression supported that the more positive people's attitudes were towards the law, courts and police services (LCP), the higher their support overall for police to use consumer DNA databases in investigations. This support uniquely explained nearly 7 per cent of the variance[1]. Overall, these results suggested that the more positive attitudes were towards LCP and the stronger the moral alignment towards RPJ the more likely the public were to support police usage of consumer DNA databases in investigations.

Lastly, a correlational analysis was carried out to look at relationship between a participants' age and gender, and whether these demographic variables influenced positive attitudes towards the law and justice system, retributive justice, and support for police having access to consumer DNA in any of the five crime types. We found that whilst age had some relationship, it was primarily attitudes towards LCP and retributive justice that showed the strongest relationship in whether people supported access to DNA databases. Specifically, retributive justice attitudes were a stronger predictor of support. In all correlations for support across the crime types, homicide showed the weakest relationship though it was still positively correlated and statistically significant.

Together this research suggests that multiple influences need to be considered when aiming to design user and consumer policy around police use of consumer DNA databases. Public support for police use of consumer DNA databases was influenced by people's attitudes towards law, courts and police. This was then correlated with their attitudes towards retributive punishment. Combined these findings showed that they predicted the public's overall levels of acceptability towards police use of consumer DNA databases in investigations.

For police to gain public support it is important to understand the nuances of public attitudes towards police access to consumer DNA databases. This research found that positive attitudes towards police, justice and law are aligned with higher retributive punishment views. This is most evident with the more serious crime types. It is possible that the more positive and supportive the public are towards crime resolution, the less concerned they may be towards aspects of privacy and consent issues. This also indicates that public attitudes are likely to change based on current socio-political influences and policy may need to be re-evaluated in-line with these changing attitudes.

For the forensic sciences, these findings indicate that although consumer DNA data provides a larger dataset for person of interest identification, the acceptability of using this data source appears to be directly linked to public attitudes. For the future of the forensic use, consumer DNA products are subject to factors that extend beyond that of the forensic sciences. To ensure access to this data continues, this research suggests that public consultation remains a key factor in not only building positive relationships between the police and communities, but also in defining under what circumstance consumer data can be used for forensic purposes.

Continued use of techniques such as Investigative Genetic Genealogy relies on maintaining public trust. This research sought to understand why and when people support this technique, and therefore strategies that can be implemented to ensure that approaches to its use don't undermine that support.

This is a summary of a research project carried at the University of Canberra in 2020 and 2021. The full results can be seen in paper by Quinton, Kelty & Scudder (2022) [6]

[1]specifically, the variance was $t(282) = 4.65$, $p < .001$, however when rounded, the difference was minimal with RPJ scores also uniquely explaining 6.76% of the variance, $t(282) = 4.83$, $p < .001$. Age was the next most significant predictor, explaining 4.24% of the variance, $t(282) = 3.55$, $p = .001$, and finally, gender explained 1.61% of the variance, $t(282) = 2.18$, $p = .030$.

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Alexandra R. Quinton

Alexandra is a research associate for the Discipline of Psychology, Faculty of Health at the University of Canberra, Australia. Her current research includes understanding public attitudes towards police use of consumer DNA products and understanding the relationship between COVID-19 responses and suicide in Australian prisons.

Announcing the ISHI Threesis Academic Challenge

Share this article



Can you summarize your research in just *three minutes*? As a student or newly minted forensic scientist, you have limited opportunities to showcase your work before your peers and presenting at a scholarly conference can be daunting. This Threesis challenge is an opportunity to refine your thinking and hone your communication skills so that you can articulate the impact your research has on the field of DNA forensics. The competition also hopes to foster engagement and collaboration between individuals by promoting your research to a wider audience.

To participate in the challenge, prepare a three-minute video explaining your research and submit via our website by July 15, 2022. Videos should be received in MP4 format and will be shared on our YouTube Channel where viewers will have until July 31, 2022, to cast their vote for their favorite by liking the video. Videos will be judged on the following criteria:

1. Did the presenter introduce the topic well?
2. Need and relevance of the research to the field of DNA forensics
3. Did the presenter explain the methods and results concisely and clearly?
4. Did the presenter make good use of slide design/images/etc.?
5. Did the presenter speak at an appropriate pace and volume?
6. Was the presentation captivating?

Two winners will be selected based on the number of likes their videos have received. The first-place winner will receive a $500 cash prize and the opportunity to have a pizza party for their entire lab. The second-place winner will receive a $250 cash prize. Additionally, both winning videos will be shared in the August issue of *The ISHI Report*, and winning presenters will be be eligible to submit an article for consideration to be printed in the peer-reviewed *Forensic Genomics* journal. **All who submit a video and their advising professor will receive a free ISHI t-shirt just for entering the challenge.**

Who is eligible to participate?

The 2022 ISHI Threesis Academic Challenge is open to all currently enrolled students in a forensic science (or a similarly named program) at the undergraduate or graduate levels or those who have been working in the forensic DNA field for 3 years or less. Applicants must present original research that is their own or was done in a group, however, only one person may present per presentation (group presentations are not permitted).

How to apply?

To apply, participants will need to fill out an application on our website by July 15, 2022. Applicants will be asked for general contact info as well as a brief title and abstract of their project (ideally 250 words or less).

SUBMIT YOUR VIDEO

Official Rules

1. Eligibility: This Campaign is open only to all currently enrolled students in a forensic science (or a similarly named program) at the undergraduate or graduate levels or those who have been working in the forensic DNA field for 3 years or less. Applicants must present original research that is their own or was done in a group, however, only one person may present per presentation (group presentations are not permitted). Applicants must be at least 18 years of age or older as of the date of entry. The Campaign is subject to all applicable federal, state, and local laws and regulations. The Campaign is void where prohibited by law.
2. Agreement to Rules: By participating, you agree to be fully unconditionally bound by these Rules, and you represent and warrant that you meet the eligibility requirements. In addition, you agree to accept the decisions of ISHI as final and binding as it relates to the content of this Campaign.
3. Campaign Period: Entries will be accepted online starting 9:00am CST Monday, May 23, 2022, ending 11:59pm CST Friday, July 15, 2022.
4. How to Enter: The Campaign must be entered by submitting your application on the ISHI website. The entry must fulfill all Campaign requirements, as specified, to be eligible to win a prize. Entries that do not adhere to the rules or specifications may be disqualified at the sole discretion of ISHI. Each valid participant may enter only once. You must provide the information requested. You may not enter more times than indicated by using multiple email addresses, identities, or devices in an attempt to circumvent the rules. If you use fraudulent methods or otherwise attempt to circumvent the rules, your submission may be removed from eligibility at the sole discretion of ISHI.
5. Prizes: The winner(s) of the Campaign (the "Winner") will each receive a monetary award in the amount of $500 or $250. The grand prize winner will be also receive a pizza party for their entire lab. Actual/appraised value may differ at time of prize award. The specifics of the prize shall be solely determined by ISHI. No cash or other prize substitution shall be permitted except at ISHI discretion. The prize is nontransferable. Any and all prize-related expenses, including without limitation any and all federal, state, and/or local taxes, shall be the sole responsibility of Winner. No substitution of prize or transfer/assignment of prize to others or request for the cash equivalent by Winner is permitted. Acceptance of prize constitutes permission for ISHI to use Winner's name, likeness, and entry for purposes of advertising and trade without further compensation, unless prohibited by law.
6. Odds: The odds of winning depend on the number of eligible entries received.
7. Winner Selection and Notification: At the end of the Campaign Period, Winners will be selected based upon the number of votes (likes) their video has received. Each Winner will be notified by email within seven (7) days following selection of Winner. ISHI shall have no liability for Winner's failure to receive notices due to spam, junk e-mail or other security settings or for Winner's provision of incorrect or otherwise non-functioning contact information. If Winner cannot be contacted, is ineligible, fails to claim the prize within 30 days from the time award notification was sent, or fails to timely return a completed and executed declaration and release as required, the prize may be forfeited and an alternate Winner selected. Receipt by Winner of the prize offered in this Campaign is conditioned upon compliance with any and all federal, state, and local laws and regulations. ANY VIOLATION OF THESE OFFICIAL RULES BY WINNER (AT ISHI'S SOLE DISCRETION) WILL RESULT IN WINNER'S DISQUALIFICATION AS WINNER OF THE CAMPAIGN, AND ALL PRIVILEGES AS WINNER WILL BE IMMEDIATELY TERMINATED.
8. Rights Granted by You: By entering this Campaign, You understand and agree that ISHI, anyone acting on behalf of ISHI, shall have the right, where permitted by law, to print, publish, broadcast, distribute, and use in any media now known or hereafter developed, in perpetuity and throughout the World, without limitation, your entry, name, portrait, picture, voice, likeness, image, statements about the Campaign, and biographical information for news, publicity, information, trade, advertising, public relations, and promotional purposes without any further compensation, notice, review, or consent.
9. Terms & Conditions: ISHI reserves the right, in its sole discretion, to cancel, terminate, modify or suspend the Campaign should virus, bug, non-authorized human intervention, fraud, or other cause beyond ISHI's control corrupt or affect the administration, security, fairness, or proper conduct of the Campaign. In such case, ISHI may select the Winner from all eligible entries received prior to and/or after (if appropriate) the action taken by ISHI. ISHI reserves the right, in its sole discretion, to disqualify any individual who tampers or attempts to tamper with the entry process or the operation of the Campaign or website or violates these Terms & Conditions. Any attempt by an entrant to deliberately damage any website or undermine the legitimate operation of the Campaign may be a violation of criminal and civil laws. Should such attempt be made, ISHI reserves the right to seek damages to the fullest extent permitted by law.
10. Limitation of Liability: By entering, You agree to release and hold harmless ISHI and its subsidiaries, affiliates, advertising and promotion agencies, partners, representatives, agents, successors, assigns, employees, officers, and directors from any liability, illness, injury, death, loss, litigation, claim, or damage that may occur, directly or indirectly, whether caused by negligence or not, from: (i) such entrant's participation in the Campaign and/or his/her acceptance, possession, use, or misuse of any prize or any portion thereof; (ii) technical failures of any kind, including but not limited to the malfunction of any computer, cable, network, hardware, or software, or other mechanical equipment; (iii) the unavailability or inaccessibility of any transmissions, telephone, or Internet service; (iv) unauthorized human intervention in any part of the entry process or the Campaign; (v) electronic or human error in the administration of the Campaign or the processing of entries.
11. Disputes: THIS Campaign IS GOVERNED BY THE LAWS OF THE UNITED STATES AND THE STATE OF WISCONSIN, WITHOUT RESPECT TO CONFLICT OF LAW DOCTRINES. As a condition of participating in this Campaign, entrant agrees that any and all disputes that cannot be resolved between the parties and causes of action arising out of or connected with this Campaign, shall be resolved individually, without resort to any form of class action, exclusively before a court located in Wisconsin having jurisdiction. Further, in any such dispute, under no circumstances shall participant be permitted to obtain awards for, and hereby waives all rights to, punitive, incidental, or consequential damages, including reasonable attorney's fees, other than participant's actual out-of-pocket expenses (i.e. costs associated with entering this Campaign). Participant further waives all rights to have damages multiplied or increased.
12. Winners List: To obtain a copy of the Winner's name or a copy of these Official Rules, mail your request along with a stamped, self-addressed envelope to: Promega, Attn: ISHI, 2800 Woods Hollow Road, Madison, WI 53711. Requests must be received no later than 5:00pm CST on Monday, August 15, 2022.
13. Sponsor: The Sponsor of the Campaign is ISHI, 2800 Woods Hollow Road, Madison, WI 53711
14. Consent: By participating in the Campaign, you have affirmatively reviewed, accepted, and agreed to all Official Rules.

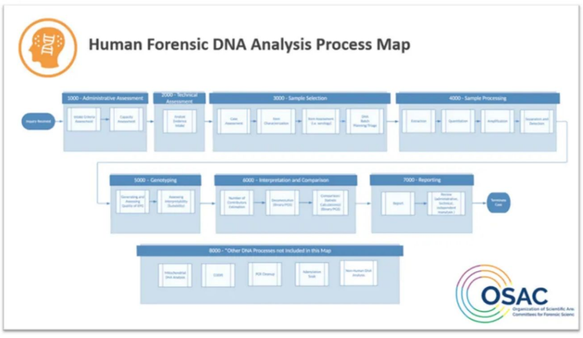
An Update from the Organization of Scientific Area Committees (OSAC) for Forensic Science

Robyn Ragsdale, Chair of OSAC's Biology Scientific Area Committee and Beth Ordeman, Chair of OSAC's Human Forensic Biology Subcommittee

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NEW: Human Forensic DNA Analysis Process Map Now Available!

The Organization of Scientific Area Committees (OSAC) for Forensic Science's Human Forensic Biology Subcommittee, with contributions from the Scientific Working Group on DNA Analysis Methods (SWGDAM), has developed a Human Forensic DNA Analysis Process Map that captures details about the various procedures, methods and decision points most frequently encountered in human forensic biology/DNA analysis.



Overview of the Human Forensic DNA Analysis Process Map

This process map, which captures the diverse practices of multiple laboratories from a national perspective, provides a visual description of the various steps of the casework process currently performed by DNA analysts. It can benefit the human forensic biology/DNA discipline by providing a behind-the-scenes perspective into the various components and decision points in the DNA analysis process.

Read more and access the Human Forensic DNA Process Map on the OSAC website.

Three New DNA Standards Added to the OSAC Registry

OSAC added the following three DNA standards to the Registry on April 5, 2022:

- ANSI/ASB Standard 130, *Standard for Training in Forensic DNA Amplification Methods for Subsequent Capillary Electrophoresis Sequencing*, First Edition, 2021. Initially drafted by OSAC's Human Forensic Biology Subcommittee and finalized by ASB's DNA Consensus Body, this standard provides the general requirements for a forensic DNA laboratory's training program in forensic DNA amplification methods for subsequent capillary electrophoresis (CE) sequencing. This standard applies to forensic human and wildlife mitochondrial DNA amplification, and wildlife nuclear DNA amplification.

- ANSI/ASB Standard 131, *Standard for Training in Forensic DNA Sequencing Using Capillary Electrophoresis*, First Edition, 2021. Initially drafted by OSAC's Human Forensic Biology Subcommittee and finalized by ASB's DNA Consensus Body, this standard provides the general requirements for a forensic DNA laboratory's training program in forensic DNA sequencing using capillary electrophoresis. This standard applies to forensic human and wildlife mitochondrial DNA capillary electrophoresis sequencing, and wildlife nuclear DNA capillary electrophoresis sequencing.

- ANSI/ASB Standard 140, *Standard for Training in Forensic Human Mitochondrial DNA Analysis, Interpretation, Comparison, Statistical Evaluation, and Reporting*, First Edition, 2021. Initially drafted by OSAC's Human Forensic Biology Subcommittee and finalized by ASB's DNA Consensus Body, this standard provides the requirements for a forensic DNA laboratory's training program in forensic human mitochondrial DNA (mtDNA) analysis, interpretation, comparison, statistical evaluation, and reporting.

The OSAC Registry contains a total of 13 DNA standards (11 SDO published and two OSAC Proposed). If your organization has implemented any of the standards on the Registry, complete the OSAC Registry Implementation Declaration Form on the OSAC website and let us know!

Want to help strengthen forensic science through standards? Provide your expertise and input on DNA standards open for comment at standards developing organizations (SDOs) and under consideration for the Registry.

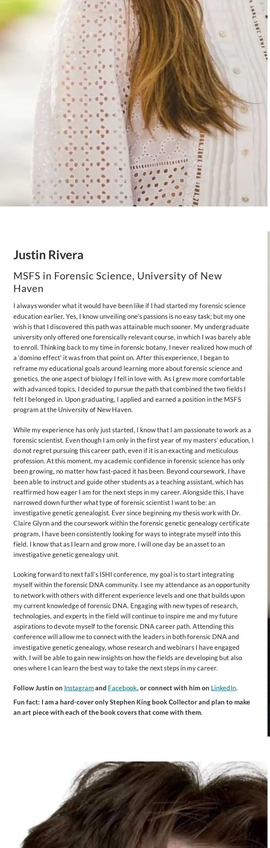
Meet The 2022 ISHI Student Ambassadors

Tara Luther, Promega



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We know that it takes a special kind of person to choose forensic science as a career, and this year, we'd like to recognize a few of the students who are making a difference in the field. We're excited to introduce this year's ISHI Ambassadors! These students are all pursuing degrees in the field of forensics. They will be participating in this year's 33rd International Symposium on Human Identification in Washington D.C.. Follow Andrea, Justin, Noelle, and Chastyn on social media as they share highlights from the ISHI workshops, presentations, and poster sessions. We'll also hear about the fun moments in between the scientific sessions including the Welcome and Wednesday Night Events. We look forward to seeing the meeting through their eyes, and learning more about their research and career aspirations.



Andrea Ramírez Torres

MPS in Forensic Science, Biology Track at Penn State University

Ni una menos, vivas nos queremos. As I grew up in Puerto Rico, this phrase became more and more pertinent in my life. Not one more, we want us alive. The incidence of femicides and violence against women was rampant by the time I began college in 2017. That year, I was forced to evacuate the island when Hurricane María was an imminent danger and relocated to Miami. After the hurricane, I decided to continue my studies at Florida International University. Education was my way of connecting to my home and the crises people still faced there. I was determined to become an advocate for the women in Puerto Rico, regardless of how far away from home I was.

As I was serving on the planning committee for FIU's Sexual Assault Awareness Month creating programming focusing on the current sexual assault kit backlog, I came across a paper on forensic science efforts to decrease the backlog. The visualization of a career where I could serve sexual assault survivors through science was fascinating. It felt right, and I pursued it with drive and passion. I joined the McCord research lab in the Department of Chemistry at the beginning of my junior year, where I began investigating the genital microbiome for applications in sexual assault cases, designing and validating a Real-Time PCR assay for genital microbial signatures. I decided to also pursue an undergraduate certificate in Women & Gender Studies. By the Fall of 2020, I had completed my first research project and began transitioning to a leader in my lab, working alongside Ph.D. Candidate Mirna Ghemrawi to publish a manuscript entitled "The genital microbiome and its potential for detecting sexual assault" in Forensic Science International: Genetics.

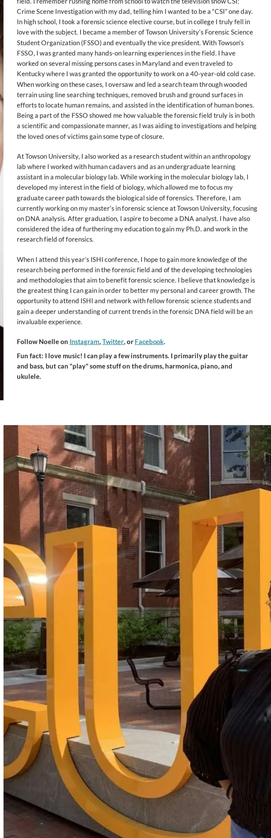
I graduated from FIU in the Fall of 2021 as a Real Triumphs Graduate with my B.S. in Biochemistry, and I will be joining Penn State's Forensic Science Master's program this Fall 2022 on a full-ride scholarship for the two years of the program as a Wieland Graduate Scholar. As an ambassador for the International Symposium on Human Identification, I will present my current work on studying the genital microbial transfer between individuals. Having attended ISHI in 2021, I know the value and importance of communicating with leaders in the forensic field. Communicating the work I am doing in the lab is the way to get it introduced into the field, and ISHI would be the ideal place to receive feedback as well as exposure on how the genital microbiome could be integrated into forensic labs. I aspire to innovate new methods for human identification for applications in sexual assault casework so that there is ni una menos.

Follow Andrea on Instagram, Twitter, **or connect with her on** LinkedIn.

Fun fact: I like building houses in the Sims 4! It's my way of de-stressing.

Justin Rivera

MSFS in Forensic Science, University of New Haven



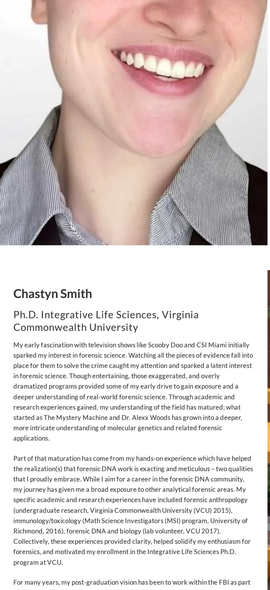
I always wonder what it would have been like if I had started my forensic science education earlier. Yes, I know unveiling one's passions is no easy task; but my one wish is that I discovered this path was attainable much sooner. My undergraduate university only offered one forensically relevant course, in which I was barely able to enroll. Thinking back to my time in forensic botany, I never realized how much of a 'domino effect' it was from that point on. After this experience, I began to reframe my educational goals around learning more about forensic science and genetics, the one aspect of biology I fell in love with. As I grew more comfortable with advanced topics, I decided to pursue the path that combined the two fields I felt I belonged in. Upon graduating, I applied and earned a position in the MSFS program at the University of New Haven.

While my experience has only just started, I know that I am passionate to work as a forensic scientist. Even though I am only in the first year of my masters' education, I do not regret pursuing this career path, even if it is an exacting and meticulous profession. At this moment, my academic confidence in forensic science has only been growing, no matter how fast-paced it has been. Beyond coursework, I have been able to instruct and guide other students as a teaching assistant, which has reaffirmed how eager I am for the next steps in my career. Alongside this, I have narrowed down further what type of forensic scientist I want to be: an investigative genetic genealogist. Ever since beginning my thesis work with Dr. Claire Glynn and the coursework within the forensic genetic genealogy certificate program, I have been consistently looking for ways to integrate myself into this field. I know that as I learn and grow more, I will one day be an asset to an investigative genetic genealogy unit.

Looking forward to next fall's ISHI conference, my goal is to start integrating myself within the forensic DNA community. I see my attendance as an opportunity to network with others with different experience levels and one that builds upon my current knowledge of forensic DNA. Engaging with new types of research, technologies, and experts in the field will continue to inspire me and my future aspirations to devote myself to the forensic DNA career path. Attending this conference will allow me to connect with the leaders in both forensic DNA and investigative genetic genealogy, whose research and webinars I have engaged with. I will be able to gain new insights on how the fields are developing but also ones where I can learn the best way to take the next steps in my career.

Follow Justin on Instagram **and** Facebook, **or connect with him on** LinkedIn.

Fun fact: I am a hard-cover only Stephen King book Collector and plan to make an art piece with each of the book covers that come with them.



Noelle Neff

Masters of Science in Forensic Science, Towson University

From a very young age, I knew I wanted to pursue a career in the forensic science field. I remember rushing home from school to watch the television show CSI: Crime Scene Investigation with my dad, telling him I wanted to be a "CSI" one day. In high school, I took a forensic science elective course, but in college I truly fell in love with the subject. I became a member of Towson University's Forensic Science Student Organization (FSSO) and eventually the vice president. With Towson's FSSO, I was granted many hands-on learning experiences in the field. I have worked on several missing persons cases in Maryland and even traveled to Kentucky where I was granted the opportunity to work on a 40-year-old cold case. When working on these cases, I oversaw and led a search team through wooded terrain using line searching techniques, removed brush and ground surfaces in efforts to locate human remains, and assisted in the identification of human bones. Being a part of the FSSO showed me how valuable the forensic field truly is in both a scientific and compassionate manner, as I was aiding to investigations and helping the loved ones of victims gain some type of closure.

At Towson University, I also worked as a research student within an anthropology lab where I worked with human cadavers and as an undergraduate learning assistant in a molecular biology lab. While working in the molecular biology lab, I developed my interest in the field of biology, which allowed me to focus my graduate career path towards the biological side of forensics. Therefore, I am currently working on my master's in forensic science at Towson University, focusing on DNA analysis. After graduation, I aspire to become a DNA analyst. I have also considered the idea of furthering my education to gain my Ph.D. and work in the research field of forensics.

When I attend this year's ISHI conference, I hope to gain more knowledge of the research being performed in the forensic field and of the developing technologies and methodologies that aim to benefit forensic science. I believe that knowledge is the greatest thing I can gain in order to better my personal and career growth. The opportunity to attend ISHI and network with fellow forensic science students and gain a deeper understanding of current trends in the forensic DNA field will be an invaluable experience.

Follow Noelle on Instagram, Twitter, **or** Facebook.

Fun fact: I love music! I can play a few instruments. I primarily play the guitar and bass, but can "play" some stuff on the drums, harmonica, piano, and ukulele.

Chastyn Smith

Ph.D. Integrative Life Sciences, Virginia Commonwealth University



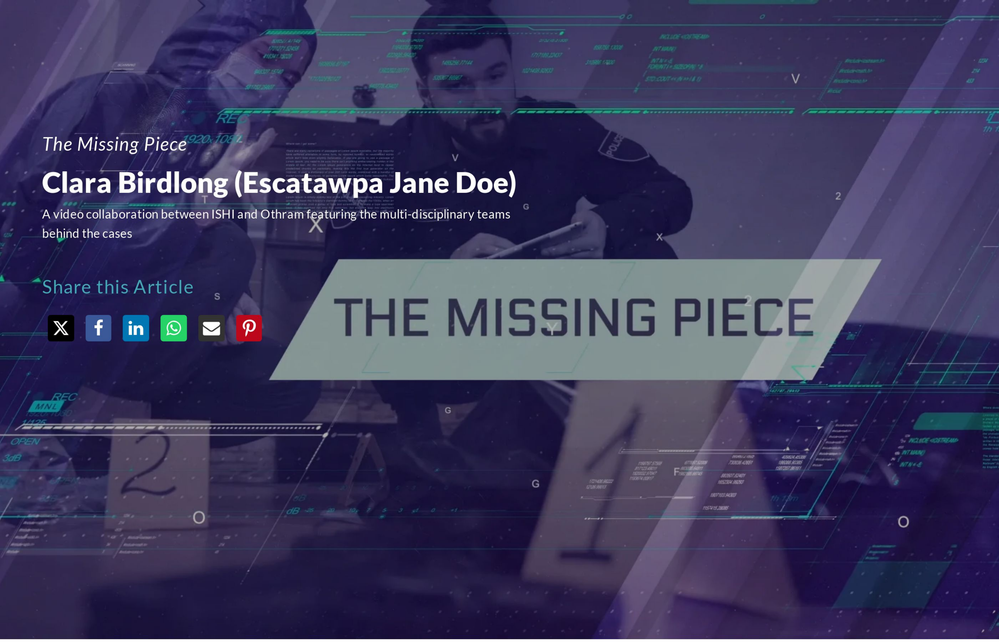
My early fascination with television shows like Scooby Doo and CSI Miami initially sparked my interest in forensic science. Watching all the pieces of evidence fall into place for them to solve the crime caught my attention and sparked a latent interest in forensic science. Though entertaining, those exaggerated, and overly dramatized programs provided some of my early drive to gain exposure and a deeper understanding of real-world forensic science. Through academic and research experiences gained, my understanding of the field has matured; what started as The Mystery Machine and Dr. Alexx Woods has grown into a deeper, more intricate understanding of molecular genetics and related forensic applications.

Part of that maturation has come from my hands-on experience which have helped the realization(s) that forensic DNA work is exacting and meticulous – two qualities that I proudly embrace. While I aim for a career in the forensic DNA community, my journey has given me a broad exposure to other analytical forensic areas. My specific academic and research experiences have included forensic anthropology (undergraduate research, Virginia Commonwealth University (VCU) 2015), immunology/toxicology (Math Science Investigators (MSI) program, University of Richmond, 2016), forensic DNA and biology (lab volunteer, VCU 2017). Collectively, these experiences provided clarity, helped solidify my enthusiasm for forensics, and motivated my enrollment in the Integrative Life Sciences Ph.D. program at VCU.

For many years, my post-graduation vision has been to work within the FBI as part of the Scientific Response and Analysis Unit (SRAU). However, I am now more curious about other avenues that may be a better fit for my technical (laboratory-based) skill set and life goals. In the end, I am open to new opportunities – including those that specifically help guide casework and research in other accredited laboratory environments – and believe that attending conferences, like ISHI, will provide much needed perspective and networking. Specifically, by attending ISHI I hope to gain knowledge about different careers that align with my career goals and technical background. Connecting with like-minded people will allow me to build a professional network that understands the demands of the occupation and that can offer insights about career options and alternatives. Moreover, this conference provides an excellent window to practice communicating scientific research and one which will, ultimately, help shape me into the distinguished forensic scientist I yearn to be.

Follow Chastyn on Instagram, Twitter **and** Facebook, **or connect with her on** LinkedIn.

Fun fact: I have pet bees! I have 3 bees (Bob, Billy, and Betsy) that return to the front porch of my house every spring.



The Missing Piece

Clara Birdlong (Escatawpa Jane Doe)

A video collaboration between ISHI and Othram featuring the multi-disciplinary teams behind the cases

Share this Article

For years, victims were listed on cold case files in law enforcement evidence boxes. While never forgotten, limitations in forensic science prevented their cases from being closed. Families waited decades for answers and justice while their killers remained unidentified.

In 2018, a new tool for crime solving rose to prominence as the notorious Golden State Killer was finally unmasked; forensic genetic genealogy. To begin, investigators upload their unknown DNA profile to the site, which generates a list of the closest genetic matches, based on how many centimorgans (cM) of DNA are shared with the unknown person. Next, investigators will begin to build back the unknown person's family tree until a common ancestor is uncovered. Then, they will build the family trees forward, identifying every descendent possible, using traditional genealogy techniques. Once the trees have been fully built out, investigators look to identify candidate persons that might match the unknown person. Once a person of interest has been identified, new DNA can be collected to compare to the original forensic sample.



Though investigators suspected she was a victim of prolific serial killer, Samuel Little, they didn't know her name for over 40 years.

In December 1977, hunters discovered skeletonized human remains near a highway undergoing construction in Mississippi. Investigators determined that the remains belonged to an African American woman, small in stature. She had a distinctive front gold tooth and may have been wearing a wig. Investigators estimate that the woman might have died 3-4 months prior to discovery. Over the years several facial reconstructions and computer composites were created in an effort to help identify her. With no viable leads to her identity, she became known as "Escatawpa Jane Doe".

In 2018, convicted serial killer Samuel Little confessed to numerous murders across the Southeast, including the murder of Escatawpa Jane Doe, whom he did not know by name. Investigators confirmed Samuel Little was in Jackson County in 1977, during the approximate time frame of the woman's death. Samuel Little died in prison in 2020.

With all leads exhausted, Jackson County Sheriff's Office, in cooperation with the Mississippi State Crime Lab, contracted Othram to see if advanced DNA testing could help produce leads to Escatawpa Jane Doe's true name.

Genealogical research led to a 93 year-old woman who was originally from Leflore County, Mississippi who stated her cousin, Clara Birdlong, had gone missing in the 1970's. A distant cousin in Texas confirmed that Clara, who had gone by the name "Nuttin" was a small woman who had a gold front tooth and often wore a wig.

Investigator Matthew Hoggatt located a woman in Leflore County who remembered Clara. She said Clara left Leflore County in the 70's with an African American man who claimed to be passing through Mississippi on his way to Florida. Clara was never seen or heard from again.

Investigator Hoggatt requested reference DNA samples from several people closely associated with Clara to help confirm the ID. Othram used KinSNP rapid familial testing to confirm the suspected relationships. After further investigation and elimination of all other living and deceased relatives, investigators concluded the victim known as Escatawpa Jane Doe, was Clara Birdlong, born in 1933 in Leflore County, MS.

Investigators later learned Samuel Little was arrested in Pascagoula in August of 1977. Although he is now deceased, Samuel Little is considered a prime suspect in the death of Clara Birdlong. Anyone who may remember Clara Birdlong is asked to contact the Jackson County Sheriff's Office at (228) 769-3063 or Mississippi Crime Stoppers at 877-787-5898.

The Othram team wishes to gratefully acknowledge Carla Davis, who provided critical funding support for this case.

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Nuevas Activades para la Comunidad Científico-Forense Latinoamericana y de Habla Hispana Durante el ISHI

Gloria de la Torre, Promega

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Para Promega es un placer poner a disposición de la comunidad científico forense latinoamericana y de habla hispana una nueva oferta de actividades de actualización científico-técnica y socialización de trabajos relacionados con la genética forense realizados en la región.

Durante la versión 33 del ISHI o Simposio internacional de identificación humana por sus siglas en inglés (ishinews.com) que se llevará a cabo del 30 de octubre al 3 de noviembre en Washington D.C. Tendremos la versión 13 del taller GCLAITH o taller del Grupo Científico Latinoamericano de Trabajo Sobre Identificación Humana y El taller de interpretación de mezclas.

En primer lugar, el GCLAITH durante 13 años ha constituido un escenario donde científicos forenses de Latinoamérica y de España han presentado gran diversidad de trabajos realizados en sus laboratorios, lo cual ha favorecido el intercambio de información científica y el aprendizaje mutuo, así como la socialización y creación de redes de contacto entre los diferentes laboratorios de la región. Entre la gran variedad de temas que se han tratado en este escenario están: prácticas de laboratorio, secuenciación de nueva generación en investigación forense, identificación genética en casos difíciles, interpretación de mezclas, aplicación de nuevas técnicas de extracción en muestras de casuística y estadística entre otros temas de gran interés para la comunidad genética forense.

En esta nueva edición del GCLAITH, evento que será de modalidad híbrida (presencial y virtual) y tendrá lugar el 31 de octubre del 2022 de 9 a.m-5p.m hora este de Estados unidos (GMT-4) contaremos con exposiciones de trabajos de diferentes especialistas de la región, moderados por el Dr. Ronaldo Carneiro da Silva Junior, custodio de la Base Nacional de datos de ADN de la Policía Federal del Brasil y coordinador del Comité Directivo de la Red Brasileña de Bases de Datos de ADN, miembro del ISFG y de la junta directiva del GITAD/AICEF entre otras distinciones.

Desde ya los invitamos a enviar las preguntas que puedan tener acerca de este evento al correo: ISHI@promega.com

Por otra parte, como se mencionó arriba, en esta ocasión ofreceremos el taller de interpretación de mezclas en español evento presencial de media jornada, 1:00 pm - 4:00 pm hora este de Estados unidos (GMT-4). En este taller práctico se discutirán los procedimientos necesarios para tener mejor uso de los datos obtenidos en análisis de STR en mezclas incorporando el uso de promedio de altura de picos, imbalances, stutter etc. Así como se obtendrán las habilidades para implementar estos métodos en sus laboratorios. Este taller estará a cargo de Rebecca Gonzales y Zoraya Reyes. Rebecca es asistente del Administrador CODIS en la División de Biología Forense del Centro de Ciencia Forense de Houston y Zoraya Reyes es analista forense del Centro de Ciencia Forense de Houston.

Desde ya les damos la bienvenida a estas actividades y esperamos contar con su presencia, asi como verlos en alguna de las versiones virtual o presencial del ISHI. Pueden registrarse en este link.

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