



the DNA difference

IN A COUNTRY WHERE VIOLENCE AGAINST WOMEN AND CHILDREN IS RIFE – WITH AN ESTIMATED THREE CHILDREN RAPED EVERY MINUTE AND A WOMAN OR GIRL SEXUALLY ASSAULTED EVERY 25 SECONDS – HERE IS A BILL THAT CAN MAKE A DIFFERENCE, AND IT ALL STARTED WITH ONE WOMAN.

Activist and lawyer Vanessa Lynch is a woman with a mission – one that started 14 years ago with the murder of her father John in his family home in Johannesburg. He died during an armed robbery, like many that occur in our country every day. The brutal price: a life taken too soon. Despite the deluge of evidence that should have been enough to convict, his killers have never been apprehended.

Lynch, the co-founder of the DNA Project, tells how her mother, scared and frantic, managed to call for help from her hiding place in the bedroom. Within minutes, neighbours, security guards and emergency services were on scene. John was rushed to hospital, where, despite valiant efforts from the surgeons on duty, he died from his wounds. A struggle had taken place in and through the home between John and the perpetrators, as he ferociously tried to protect his wife. Several shots were fired before the armed robbers grabbed his cellphone and fled.

“There was a lot of evidence left behind by his murderers and, as such, there were many sources of DNA evidence that could have been collected which would have linked the perpetrators to the crime scene,” says Lynch. “The wire cutters they used to get through the fence, shoeprints in the flowerbed, blood on the razor wire where they must have cut themselves while fleeing, skin or tissue under my dad’s fingernails from fighting them off. There could have been skin cells or hairs on his clothes, transferred during the struggle. They had also left a bottle in the back garden where they had been drinking just prior to breaking in.”

However, adds Lynch, the heroic efforts of neighbours, security guards and paramedics who tried to save John resulted in justice for his death being denied. “The crime scene and any possible evidence left behind were obscured by the number of people tramping through it; the house was later cleaned up by well-meaning people thinking that signs of murder, such as blood, would offend the family. Critical evidence such as the bottle containing saliva was discarded. Blood and skin weren’t collected from under my dad’s nails at the autopsy, and his clothes were thrown away at the hospital.

“None of these actions was deliberate. All of this was done out of ignorance, because no one knew

any differently – but essentially all traces of who had committed the crime were eliminated.”

Lynch adds that, in hindsight, it’s devastating, but at the time, when emotions were so raw, they didn’t understand the future significance of these well-meaning actions. And, once they did, it was too late. “The crime scene is a silent witness to what has happened and who is responsible. Finding clues or evidence and allowing them to tell the story are a critical part of holding the perpetrators responsible for their actions.”

It was at this point that Lynch realised that, as a society, we need to change the way in which evidence is treated at a crime scene. “By us, I mean all first responders, including the public.”

Like most who have lost a loved one, Lynch didn’t want her father’s story to end there; she wanted his death to have meaning, just as his life did. “There was something much bigger at stake here – I recognised that this was an issue that was not peculiar to my dad’s case. People were literally getting away with murder because we were losing the opportunity to link them to their crimes – and this didn’t have to be the case. There is a way of holding criminals accountable for their actions and preventing them from harming more innocent people.”

And so, the idea of the DNA Project was born. “We wanted to prevent other victims from being denied justice.” Lynch put together a team of nationwide experts, all dedicated to the same outcome. With specialities in law, genetics, molecular biology, forensics, biochemistry and criminology, among others – this is a team that knows what it’s doing. “Rather than

DNA AT WORK

The case of Baby Tshepang illustrates how DNA can be used for both the guilty and the innocent. Given the nickname meaning “have hope”, Baby Tshepang was brutally raped in Louisvale, Northern Cape, when she was just nine months old. Her injuries were so horrifically severe that there was no other explanation than gang rape.

The attack provoked outrage in the community, and six men were arrested and jailed for three months (for their own safety). However, on examining the case, the public prosecutor called for DNA analysis to be used in the investigation. Samples had been taken from Baby Tshepang at the time of the attack, as well from her clothing. These were sent to the Forensic Science Laboratory’s DNA unit for analysis, along with DNA samples from the six accused.

The DNA results revealed that only one rapist was involved in the attack, and he was not one of the six incarcerated. The six falsely accused men were released and exonerated. A further suspect, this time a former boyfriend of the baby’s mother, was arrested, his DNA analysed and a match found. David Potse was not only found guilty of the crime, but was sentenced to life imprisonment for what the judge called the “most gruesome violation of human rights he has ever ruled on”.

Adds Lynch: “Sadly, this case is not an isolated incident in South Africa, but shows what a powerful tool DNA is to take these rapists out of society.”



carry my father's file and my fury around for the rest of my life, I wanted to use that energy to create positive change in a country which is screaming out for tangible solutions to solve and prevent crime – and by pursuing the objectives of the DNA Project, I know that he has not died in vain. Crime-scene awareness campaigns, as well as fighting for legal reform, have become the cornerstones of what we do at the DNA Project.”

Create change they have. This dedicated and knowledgeable team, along with its supporters, has been instrumental in convincing the South African government to make changes to the law that governs DNA evidence. The Criminal Law (Forensic Procedures) Amendment Bill, known as the DNA Act, was passed in January 2014 (10 years after the DNA Project started lobbying for it). This now makes it mandatory for DNA samples to be collected from those who are arrested and convicted of Schedule 8 offences, and these are added to a National DNA Database. Schedule 8 offences include treason, public violence, murder, rape, culpable homicide, sex trafficking, robbery, theft, kidnapping and arson.

“This means that once a DNA sample (such as blood, semen or hair) has been collected from a crime scene and analysed for a DNA profile, it is entered into the National DNA Database, where it may match someone on the database. If there is a match or a hit, that links that offender to that crime scene immediately. One person may be linked not only to one, but to many crimes that may have been committed in the past. It

is going to have a huge impact on the criminal justice system, especially in the early apprehension and identification of serial offenders,” says Lynch.

For the first time, there is a law that now mandates specially trained police officers to take DNA samples from those arrested and convicted, the same way that fingerprints are routinely collected. The larger the database, the greater the chance of getting a match. “But while the legislation looks good on paper, our mission now is to see it translated into actual crime deterrence and reduction. If it can be effectively implemented, then only can we say we have made a difference.”

And herein lies the rub...

It is going to take time to implement nationwide. Some 100 000 police are expected to receive training in the collection of genetic evidence. The five-year education drive was due to start in April, but there have been some delays.

Lynch explains that, despite this, things are still moving in the right direction. The police will be trained to take DNA swabs, and members of the National Forensics Oversight and Ethics Board appointed.

It's important to ensure that all processes are put in place so that the system can work. Joe Blozis, a retired NYPD detective, agrees. Speaking at the TEARS Foundation DNA Bill Panel, held in Johannesburg in February, he explained that DNA is a powerful law-enforcement tool, one he has seen working. He explains that in September 2003, the New York City Police Department (NYPD) implemented a pilot project. The programme, known as BioTracks, was funded by the president's DNA Initiative Program, and was administered through the National Institute of Justice (NIJ) and the New York State's Division of Criminal Justice Services.

The NYPD recovered DNA evidence from no-suspect burglary scenes in Queens, vetted them, and sent the samples to selected private vendors for analysis. These were then sent to the Office of the Chief Medical Examiner, who would then upload applicable DNA profiles to the Combined DNA Identification System (known as CODIS). “By generating DNA profiles from evidence collected at burglary scenes and uploading them into local, state and national DNA databases, perpetrators of no-suspect cases were identified and links between otherwise unrelated burglaries were established,” he

wrote in his report for *Evidence Technology Magazine*.

He adds that in 2005, the BioTracks programme was expanded throughout New York City. Within five years, 1 558 profiles had been generated, resulting in 692 case-to-offender matches involving 548 offenders. The vast majority of offenders pled guilty when confronted with the evidence, and have been incarcerated.

Blozis says many of the offenders were recidivists and that burglary was a stepping stone to more serious crime. “The BioTracks programme became a model for how all crime scenes are now processed.” Today, adds Blozis, the NYPD forensically investigates all applicable crime scenes, including homicides, sexual assaults, robberies, property crimes, gun possession and auto theft. The recovered DNA is submitted on a daily basis and uploaded to CODIS. “New York City's crime rate remains at record lows,” he adds.

Speaking at the press conference in February, Blozis said that it took a number of years to get the system running smoothly, but the NYPD is proof that DNA profiling can work. He fully concurs with Lynch that the system would work just as well in South Africa, and can go a long way to reducing the current serious and violent crime wave. As Lynch adds: “In violent crimes particularly, there is so much potential DNA evidence which can be collected. If we analyse it, and enter it onto the DNA database, there is a chance it will link to other crimes or a person who was previously arrested or convicted.”

She says this can potentially identify perpetrators earlier, and prevent them from attacking again, possibly saving lives. “With one of the highest reoffending rates in the world, this in an incredible tool, which we need to maximise to the full.”

However, it is not just the police who need specialised training. All first responders, be they emergency service personal, paramedics or the public, need to be vigilant about preserving potential evidence and DNA. “By touching or even sneezing onto something, you can transfer your own cells, along with their DNA, onto an important clue, making it difficult for forensic analysts to determine the original source of that evidence. The cardinal rules are not to add anything that was not there before, or remove anything from the crime scene. This includes your own DNA. The fewer people who enter a crime scene, the greater the chance there is

of linking a perpetrator who committed the crime to the crime scene.”

Of course, your natural reaction at a crime scene is to help. “The best way they can assist is by preserving any evidence and keeping the area clear of anyone who is not involved with the investigation. If victims need to be assisted or comforted, if possible that should happen away from the crime scene.” The crime scene needs to be secured as quickly as possible.

Lynch says we also need to be mindful that if a victim has been assaulted, their body is a crime scene too and must also be protected from contamination.

“Everyone has a role to play – members of the public affected by or witnesses to crime, security personnel, paramedics, the police, prosecutors. We're all in this together, and we all have power in our hands to make a difference.”

To date, around 30 000 members of the first responding community, ranging from paramedics to security guards, community protection forums, members of the public and police, have been trained. Concurrently, a training programme for members of the criminal justice system has also been set up, educating magistrates, prosecutors and even law students on the effective use of DNA evidence in conjunction with the provisions set out by the DNA Bill.

Lynch says that along with training and processing, there are already two fantastic DNA forensic labs that have set up systems to cope with the demand the DNA Bill will create, and through these labs, seemingly unrelated cases have already been linked through the database. This, she says, will increase exponentially as more profiles are loaded.

“The use of forensic DNA evidence to establish both innocence and guilt is undoubtedly one of the most scientifically objective and reliable forms of evidence available to the criminal justice system today. This, coupled with the provisions of the new DNA Act, is offering huge successes in our fight against crime in SA.” ■

THE DNA PROJECT'S INNOVATIVE ACTIVATION AT CAPE TOWN STATION, FILMED IN 2012, DREW ATTENTION TO THE ISSUE OF THE PRESERVATION OF CRIME SCENES AND DNA AS A MEANS OF FIGHTING CRIME. COPY THIS LINK TO WATCH: WWW.YOUTUBE.COM/WATCH?v=8JM08SYZVJO&FEATURE=YOUTUBE

DNA AND THE OSCAR TRIAL:

During the closing arguments of the #OscarTrial, the DNA Project launched a new campaign: <http://dnaproject.co.za/oscartrial/>, using social media. “It was because of the amount of social media opinion expressed on the matter that we decided to use that very same platform to make people think about another much bigger trial that was playing itself out in the public forum: the case of “Forensic Evidence vs The Fallibility of Public Opinion”. What better place to spread the message about the dangers of speculation in the absence of evidence than on Twitter, the modern-day switchboard that has expressed so much public opinion on the case?” says Lynch.

The campaign was to highlight that DNA and other forensic evidence has the power to convict – if it is preserved and properly collected. “When a crime scene is not disturbed, forensic evidence has the power to determine what happened and who committed the crime. Disturb the crime scene, and it seems that everyone starts to rely on the opinions expressed on social media for lack of any other evidence as to who committed that crime.

The #OscarTrial has more than ever highlighted the importance of securing a crime scene and preserving the evidence contained therein. If carried out correctly, accurate DNA and other forensic evidence collection could have resulted in a very different course of events during the #OscarTrial. But more importantly, it could result in a different outcome for every single case where forensic evidence plays a crucial role in determining what happened at the crime scene.”