

Sample Examinations of Forensic Experts

Best Use Practices

Following are sample direct and cross examinations of experts, most from cases that Sheldon & Flood, PLC have litigated. Before conducting either a direct or cross-examination of an expert witness, the criminal defense attorney must become an expert in the relevant [forensic expertise](#) as well as in the basic principals of [forensics](#).

Firearm Tookmark Expert

United States v. Wilfred Montoya-Baires

Summary: The Assistant United States Attorney conducts a direct examination of Forensic Scientist Gary Arntsen to establish that certain shell casings are connected to a shooting scene. The scientist's qualifications are substantial and uncontested. Of note during the qualification section is that the prosecutor admits into evidence, without objection, the scientist's curriculum vitae. While technically relevant, some judges may not allow a CV into evidence over objection, particularly when the expert has discussed the vast majority of his or her qualifications already, and when such qualifications are not contested. The scientist discusses how cartridges are compared with known samples fired from a gun, and how a comparison between samples of known and unknown origin can yield the opinion that a particular cartridge was indeed fired from a particular gun. As to the case at hand, the scientist is able to identify some of the tested cartridges as matching, while others are "inconclusive." Defense counsel Lana Manitta makes several points on cross examination, including, but not limited to, that the scientist cannot determine when any particular cartridges were fired, that any particular cartridges were fired on the same day as each other, and whether any of the cartridges actually passed through a person.

Transcript - Arntsen, Gary (Firearm, Toolmark) 2006-09-25 (Montoya-Baires)

Homicide Detective

Commonwealth of Virginia v. Matthew Dowdy

Summary: The Commonwealth Attorney conducts the direct examination of a police detective. He does not qualify the police detective as an expert in any area, but lays the foundation for later expert testimony on a DNA inclusion by eliciting testimony from the detective that he collected DNA from the defendant, pursuant to a search warrant, by having the defendant provide a "buccal swab" – which would later be typed to produce a DNA result, and compared to DNA evidence at a crime scene. The direct examination is short and simple, but is also a necessary foundation so that the court, in admitting the DNA evidence, and the jury, in considering it,

knows that the buccal swab in question came from the defendant. This “chain of custody” testimony is necessary, and rarely challenged unless there has been a notable police error.

Transcript - Bond, Robert (Detective, Homicide) 2007-01-09 (Dowdy)

Crime Scene Investigator

State of Maryland v. John Muhammad

Summary: The State’s Attorney conducts direct examination of crime scene specialist Kimberly Clements. Whether a “crime scene specialist” is part of the department of forensic science or part of the police department varies. In the case, the crime scene specialist is not a sworn police officer. However, the prosecutor does not qualify her as an expert, instead asking her questions about her observations of a crime scene – just like any other fact witness. She conducts a thorough direct examination, laying out the evidence that was located at a crime scene from one of the beltway sniper shootings. Often, a crime scene witness such as this one is used by a prosecutor as a vehicle through which to introduce photographs, drawings, and other exhibits from a crime scene. Later, other witness will use those same exhibits to discuss more specific information. This kind of witness also forms part of the chain of custody of evidence. For example, she removed bullet fragments from the victim’s shirt. Her chain of custody testimony will be part of the series of witnesses that demonstrates to the jury that the bullet fragments eventually analyzed by an expert witness were indeed the ones from the crime scene. Mr. Muhammad, acting without a lawyer, makes various logical points on cross examination.

Transcript - Clements, Kimberly (CSI) 2006-05-05 (Muhammad)

Gang Expert

Commonwealth of Virginia v. Jose Portillo-Chicos

Summary: The Assistant Commonwealth’s Attorney conducts a direct examination of a police detective (at a preliminary hearing, not a trial), qualifying him, without objection, as an expert in “gang activities” specifically in “MS-13 activity in Northern Virginia”. The purpose of the testimony is to establish that the murder at issue was committed “in furtherance of gang activity” – an element of capital murder as charged in the case. The qualification section of the direct is minimal, most likely because it was conducted only to establish probable cause, and not at a jury trial. Of note is that the testimony is not of a scientific or forensic nature, but based on the detective’s hand-on experience in working gang cases. It technically meets the standard for expert testimony in that it concerns a matter outside common experience. However, such testimony should be viewed by defense counsel with suspicion, and limited as much as possible, as it essentially amounts to a police officer giving an opinion based on an extensive collection of hearsay. Mr. Portillo-Chicos did not receive the death penalty.

Transcript - Farrell, John (Gang) 2006-10-20 (Portillo-Chicos)

Entomology Expert re Time of Death

Commonwealth of Virginia v. John Joseph Rogers

Summary: Defense counsel and Capital Defender for Northern Virginia Joseph T. Flood conducts direct examination of Dr. Neal Haskell in a death penalty case where the defense was an alibi, and the issue presented by Dr. Haskell's testimony was time of death. The qualification section of the direct is extensive, and Dr. Haskell is eventually qualified as an expert in forensic entomology, decomposition, and time of death. Forensic entomology is the science of analyzing the presence and past signs of insects on a dead body to establish time of death. Dr. Haskell ultimately testified that based on the presence of certain insect eggs, the state of decomposition of the body, and other factors, the victim's body must have been exposed to the elements for at least eighteen hours before it was found – a fact which, if true, established that the defendant could not have been a principal in the first degree to the murder. The prosecutor conducts minimal cross-examination. Mr. Rogers did not receive the death penalty.

Transcript - Haskell, Neal (Entomology) 2006-08-25 (Rogers)

Fingerprint Expert

Commonwealth of Virginia v. Matthew Dowdy

Summary: The prosecutor conducts a direct examination of a police fingerprint examiner, who testifies to the standard opinion of fingerprint examiners that all fingerprints are unique and that a fingerprint examiner can give a conclusive opinion as to a “match” if, in his or her expert opinion, there are enough points of comparison to declare a match. The expert is qualified, and, despite a pre-trial motion attacking the reliability of the science of conclusive fingerprint “matches”, is allowed to give an opinion. He is thoroughly cross examined by defense counsel Jon Sheldon about the assumptions inherent in fingerprint examination. While there is a substantial literature arguing that conclusive fingerprint matches are wholly unscientific, such testimony is so historically accepted it is generally admissible.

Transcript - Reeves, William (Fingerprints) 2007-01-9 & 10 (Dowdy)

Pathologist

State of Maryland v. John Allen Muhammad

Summary: The State's Attorney conducts a direct examination of Dr. Carolyn Revercomb, a medical examiner, to establish two points. First, that the cause of death of the murder victim was a shot to the head. Second, that the shot came from a “high velocity rifle” as opposed to some other kind of firearm, such as a pistol. The direct examination is effective, the expert's qualifications to give the opinion are substantial and contested. Because a state medical examiner is called in almost every murder case to establish cause of death, or sometimes time of death or other relevant points, state medical examiners testify often and are almost universally considered qualified to give such opinions.

Here, the medical goes a step beyond the garden-variety medical examiner testimony by giving an opinion about what general kind of firearm was used in the murder. The Defendant, DC Beltway sniper John Muhammed, was representing himself. He did not contest the medical examiner's qualifications to give opinion testimony concerning firearms, but did conduct cross examination on the point. He also pointed out that while the absence of gun powder stipling on the body indicated the victim was not killed at close range, it did not necessarily mean the victim was killed at long range. John Allen Muhammed was executed in 2010 for the 2002 murder of a man in Prince William County, Virginia – an alleged part of the beltway sniper killing spree.

Transcript - Revercomb, Carolyn (ME, Pathologist) 2003-10-30 (Muhammad)

Medical Examiner

People of California v. Joseph Barrett

Summary: This transcript part does not include a qualifications section. It primarily consists of a cross examination of a medical examiner in a murder case who has previously provided direct examination testimony about cause of death (a stabbing), and about whether a certain weapon would be consistent with one which could have caused the wound which caused death and was linked to the defendant. The cross examination contains interesting objections and responses, and an effective set of questions on many topics. One of the primary issues explored by the defense attorney is that while an expert can “match” a bullet or a cartridge to a gun, an expert cannot “match” a knife wound to a knife. All the expert can say is whether a knife wound is “consistent with” a certain knife. Naturally, hundreds if not thousands of knives are “consistent with” all knife wounds, as all “consistent with” means is that a particular knife is not eliminated as a possible cause of a wound. The meaning and overuse by prosecutors of the term “consistent with” often plays out during expert testimony.

Transcript - Swalwell, Christopher I. (Medical Examiner) 2003-12-05 (Barrett)

DNA Expert

United States v. Clifton Crawford

Summary: This is a transcript of a hearing where a defendant seeks to exclude evidence of “mitochondrial” DNA on the grounds that it is not sufficiently reliable. Since it is not a trial transcript, the questioning of all three experts focuses on general reliability of the science as opposed to its specific application in this case – its use to link a defendant to a crime. The first part of the transcript is a cross-examination by defense counsel of a forensic scientist, Dr. Catherine Theisen, who has previously given direct examination testimony on the topic of DNA evidence. The topic is mitochondrial DNA – a certain type of DNA testing which excludes or includes an individual based on his or her maternal lineage. If a person's mitochondrial DNA “matches” a sample from a crime scene, every maternal relative of that person would also have “matching” DNA. In this transcript, the defense attorney points out and questions the expert about the fact that the statistical database she used to include the defendant as a possible

contributor to a sample included other people who also “matched” the sample. The defense attorney attempts to illustrate that (1) mitochondrial DNA is not very discriminating as a forensic tool, and (2) it is very difficult to tell how discriminating it is where, as here, there is limited information about where the individuals in the database came from in that people from the same geographical region are probably more likely to share common DNA than those from distinct geographic regions. This transcript also contains a full direct and cross examination of another government DNA expert. The qualifications section is complete and the expert’s qualifications to give an opinion on mitochondrial DNA are not challenged. This transcript also includes the direct and cross examination of a defense DNA expert.

Transcript - Theisen, Budowle, Kittles (DNA) 2006-06-29 (Crawford)

Cooperating Witnesses/Informant

United States v Larry Gooch

Summary: Defense counsel James G. Connell conducts a thorough cross-examination of a government cooperating witness in a federal drug conspiracy case. As is often the case with federal prosecutions, the Government relies primarily on testimony from former co-defendants or associates of the accused who are being offered substantial leniency in exchange for testifying against the defendant. Of note, is is often the case, is that the government cooperator does not want to admit that is being virtually guaranteed leniency, or that it matters to him if the accused is convicted. He essentially pretends to believe that he has no idea what sentence he will receive. The cross examination exposes, as much as possible, the fact that the government cooperator actually knows he will be heavily rewarded by the prosecutors for helping them to secure a conviction.

Transcript - Martin, Herbert (cooperating witness/snitch), 2007-02-13 (Gooch)

United States v. William Jeffery

Summary: This transcript contains the direct and cross of a government cooperator in a federal case where the defendant is alleged to have taken part in a scam to steal fuel from the US Army in Iraq. The witness was the defendant's boss at a contracting company that worked in Iraq. His plea deal ultimately resulted in his being sentenced to less time to serve than the defendant, who earned one tenth the amount of money at the company and operated only as a driver's escort. Of note is the witness' refusal to admit he expects a sentencing reduction for his testimony, and his explanation of why his testimony directly conflicts with a prior sworn statement he made in front of a different Judge. (See page 200-201). Before becoming a cooperating witness, he had maintained the defendant had no direct knowledge of the scam.

Transcript - Dubois, Lee (cooperating witness/snitch), xxx (Jeffery)

Sexual Assault Victims

Commonwealth of Virginia v Anonymous

Summary: This is a transcript of a pre-trial hearing in a case where a fifteen year old alleged years of sexual abuse by her father. Because it is a pre-trial hearing, and not a trial, the questioning by the excellent attorney Christopher Leibig is more wide-ranging and less controlled than one might expect at a trial, as part of the purpose of the cross-examination is to learn information. The alleged victim testifies that her father abused her multiple times a week for multiple years while her mother slept in a nearby room. She also alleges that he brought friends into the home to take part in sexual activities with her while her mother slept. The case against the defendant was eventually dismissed.

Transcript – Victim A

This transcript is a second pre-trial hearing involving the same case of alleged child sexual abuse. It contains direct and cross examination of the same alleged victim a month and a half after the first hearing by the excellent attorney Stuart Sears. Of note is that dramatic change in her version of the abuse, as she alleges a far greater degree of abuse in the second transcript. The case was against the defendant was eventually dismissed.

Transcript – Victim B

Commonwealth of Virginia v. Smith and Doe

Summary: This transcript is a direct and cross examination of an alleged rape victim. It is not a trial transcript, but a pre-trial hearing. Therefore, the questioning is not as confined as it might be at a trial. The alleged victim met the two defendants at a Washington, DC nightclub. They went back to one of the defendant's apartments, where she claims she was raped by both of them. The defense in this case was consent. The charges against both defendant's were later dismissed.

Transcript – Victim B