

238 Ill.2d 125

345 Ill.Dec. 425

**The PEOPLE of the State of Illinois,
Appellee and Cross-Appellant,**

v.

**Sandy WILLIAMS, Appellant
and Cross-Appellee.**

No. 107550.

Supreme Court of Illinois.

July 15, 2010.

Background: Defendant was convicted following bench trial in the Circuit Court, Cook County, Kenneth J. Wadas, J., of two counts of aggravated criminal sexual assault for which he received concurrent natural-life terms, aggravated robbery for which he received concurrent 15-year term, and aggravated kidnapping for which he received consecutive term of 60 years' imprisonment. Defendant appealed. The Appellate Court, 385 Ill.App.3d 359, 324 Ill.Dec. 246, 895 N.E.2d 961, Greiman, J., affirmed in part, vacated in part, and modified sentence. The Supreme Court allowed appeal.

Holdings: The Supreme Court, Fitzgerald, J., held that:

- (1) sufficient foundation was established for state expert's testimony that defendant's DNA profile matched DNA profile of semen in victim's vaginal swabs;
- (2) state expert's testimony about report from diagnostic laboratory on male DNA profile in vaginal swabs was not "hearsay" and therefore did not implicate defendant's Sixth Amendment confrontation rights; and
- (3) prison term for aggravated kidnapping could be ordered to run consecutively to natural-life sentences for aggravated criminal sexual assault.

Appellate court judgment affirmed in part and reversed in part.

Freeman, J., specially concurred and filed opinion.

Burke, J., filed an opinion concurring in part and dissenting in part.

1. Criminal Law ⇌1153.12(3)

Abuse-of-discretion standard would be applied on appeal to defendant's foundational challenge to state expert's testimony regarding alleged match between defendant's DNA profile and DNA profile of semen in sexual assault victim's vaginal swabs.

2. Criminal Law ⇌488

Sufficient foundation was established for expert testimony by forensic biologist that defendant's DNA profile matched DNA profile of semen in vaginal swabs taken from sexual assault victim, despite lack of evidence that equipment at diagnostic laboratory that tested vaginal swabs was calibrated and functioning properly at time of testing, where biologist testified that laboratory's work was the type of data reasonably relied upon by experts in her field, that laboratory was accredited and had internal controls that she personally developed, and that she reviewed laboratory's data, used her own expertise to compare the two profiles, and did not have any question about the match.

3. Criminal Law ⇌489

The burden is placed upon the adverse party during cross-examination to elicit the facts underlying the expert opinion.

4. Criminal Law ⇌662.1, 662.8

State expert's testimony about report from diagnostic laboratory on male DNA profile in vaginal swabs taken from victim was not "hearsay" in aggravated sexual assault prosecution in which expert gave opinion that DNA profile in that report matched defendant's DNA profile, and

therefore expert's testimony about report did not implicate defendant's Sixth Amendment confrontation rights; expert testified about laboratory's tests only to explain how she formed her own opinion, and the only statement only for the truth of the matter asserted was expert's opinion. U.S.C.A. Const.Amend. 6.

See publication Words and Phrases for other judicial constructions and definitions.

5. Criminal Law ¶1139

Whether defendant's Sixth Amendment confrontation right was violated in aggravated sexual assault prosecution by state expert's testimony concerning a DNA profile report prepared by a diagnostic laboratory involved a question of law that would be reviewed de novo on appeal. U.S.C.A. Const.Amend. 6.

6. Constitutional Law ¶3856

Confrontation Clause of Sixth Amendment applies to the states through the Fourteenth Amendment. U.S.C.A. Const. Amends. 6, 14.

7. Criminal Law ¶662.8

Under Confrontation Clause, court need only consider whether a statements by witnesses absent from trial were testimonial if the statements at issue were, in fact, hearsay statements offered to prove the truth of the matter asserted. U.S.C.A. Const.Amend. 6.

8. Criminal Law ¶419(1)

"Hearsay rule" generally prohibits the introduction of an out-of-court statement offered to prove the truth of the matter asserted therein.

See publication Words and Phrases for other judicial constructions and definitions.

9. Criminal Law ¶486(3)

Underlying facts and data may be disclosed by an expert, not for the truth of

the matter asserted, but for the purpose of explaining the basis for his opinion.

10. Criminal Law ¶486(4)

An expert may testify about the findings and conclusions of a nontestifying expert that he used in forming his opinions.

11. Sentencing and Punishment ¶570

Extended-term sentence of 60 years' imprisonment for aggravated kidnapping could be ordered to run consecutively to concurrent natural-life sentences for two counts of aggravated criminal sexual assault.

Michael J. Pelletier, State Appellate Def., Patricia Unsinn, Alan D. Goldberg, Deputy Defenders, Brian Carroll, Asst. Appellate Def., of Office of State Appellate Def., of Chicago, for appellant and Cross-appellee.

Lisa Madigan, Atty. Gen., of Springfield, Anita Alvarez, State's Atty., of Chicago (James E. Fitzgerald, Ashley Romito, Alan J. Spellberg, Amy Watroba Kern, Asst. State's Attorneys, of counsel), for the People.

OPINION

Chief Justice FITZGERALD delivered the judgment of the court, with opinion.

After a bench trial in the circuit court of Cook County, the defendant, Sandy Williams, was convicted of two counts of aggravated criminal sexual assault and one count each of aggravated kidnapping and aggravated robbery of L.J. The appellate court affirmed the defendant's conviction, but reversed the trial court's imposition of a consecutive sentence. 385 Ill. App.3d 359, 371, 324 Ill.Dec. 246, 895 N.E.2d 961. On appeal to this court, the

defendant argues that the testimony of an Illinois State Police forensic analyst, who relied upon a DNA report prepared by a nontestifying third-party analyst, lacked a sufficient evidentiary foundation. Alternatively, the defendant argues that this testimony concerning the report was hearsay presented for the truth of the matter asserted and violated the defendant's sixth amendment confrontation clause right. The State cross-appeals, maintaining the appellate court improperly reversed the trial court's imposition of a consecutive sentence. For the following reasons, we affirm in part and reverse in part.

BACKGROUND

The State charged the defendant in a 17-count indictment with aggravated criminal sexual assault, aggravated kidnapping, and aggravated robbery. The cause proceeded to a bench trial. The counts that the State ultimately submitted to the judge were counts IV and VI (aggravated criminal sexual assault under 720 ILCS 5/12-14(a)(3) (West 2000)), count XV (aggravated kidnapping under 720 ILCS 5/10-2(a)(3) (West 2000)) and count XVII (aggravated robbery under 720 ILCS 5/18-5 (West 2000)). The State entered a *nolle prosequi* on the remaining counts. The following facts were adduced at trial.

On February 10, 2000, 22-year-old L.J. worked until 8 p.m. as a cashier at a clothing store in Chicago. On her way home to the south side of the city, she purchased items at the store for her mother and went toward her home. As she passed an alley, the defendant came up behind her and forced her to sit in the backseat of a beige station wagon, where he told her to take her clothes off. The defendant then vaginally penetrated L.J. The defendant also contacted L.J.'s anus with his penis, but did not penetrate. He

then pushed L.J. out of the car while keeping L.J.'s coat, money, and other items. After L.J. ran home, her mother opened the door and saw her in tears, partially clothed with only one pant leg on. After L.J. went into the bathroom, her mother called the police.

Shortly after 9 p.m., Chicago police officers arrived at the home and found L.J. in the bathtub. She had not yet washed her vaginal area. After L.J. told the officers what had transpired, the officers issued a "flash" message for a black male, 5 foot, 8 inches tall, wearing a black skull cap, a black jacket and driving a beige station wagon. An ambulance transported L.J. and her mother to the emergency room. Dr. Nancy Schubert conducted a vaginal exam of L.J. and took vaginal swabs, which were then sealed and placed into a criminal sexual assault evidence collection kit along with L.J.'s blood sample. The kit was sent to the Illinois State Police (ISP) Crime Lab for testing and analysis.

On February 15, 2000, forensic biologist Brian Hapack with the ISP Crime Lab received L.J.'s sexual assault evidence collection kit and performed tests that confirmed the presence of semen. Hapack placed the swabs in a coin envelope, sealed the envelope, and placed the evidence in a secure freezer. Hapack guaranteed the accuracy of his results by working in a clean environment free from contamination and by ensuring that the tests functioned properly.

On August 3, 2000, police arrested the defendant for an unrelated offense and, pursuant to a court order, drew a blood sample from the defendant. On August 24, 2000, forensic scientist Karen Kooi performed an analysis on the sample that consisted of four quarter-sized bloodstains on a filter card. Kooi extracted a deoxyri-

bonucleic acid (DNA) profile¹ and entered it into the database at the ISP Crime Lab. Meanwhile, the samples from L.J.'s sexual assault kit were sent to Cellmark Diagnostic Laboratory in Germantown, Maryland, for DNA analysis on November 29, 2000. Cellmark returned L.J.'s vaginal swabs and blood standard to the ISP Crime Lab on April 3, 2001. Cellmark derived a DNA profile for the person whose semen was recovered from L.J. According to ISP forensic biologist Sandra Lambatos, whose testimony will be set forth more fully below, the DNA profile received from Cellmark matched the defendant's DNA profile from the blood sample in the ISP database. L.J. identified the defendant in a line up on April 17, 2001. The defendant was then arrested for the instant offenses.

At the bench trial, Lambatos was accepted as an expert in forensic biology and forensic DNA analysis by the trial court. Lambatos began her testimony with a brief explanation of polymerase chain reaction (PCR) testing. PCR testing, according to Lambatos, is one of the most modern types of DNA analysis available and is generally accepted in the scientific community. Lambatos explained how PCR analysis can be used to identify a male profile from a semen sample. First, an analyst conducts a procedure that isolates and extracts DNA from a sample that may include a mixture from a particular defen-

dant and the victim. The DNA is not large enough to test at this point, and requires amplification to form a more workable sample. After amplification, an analyst can measure the length of an individual specific strand through a process called electrophoresis. A computer translates this measurement onto a graph called an electropherogram. The electropherogram is a representation of the individual's specified DNA data into a line with peaks representing the lengths of the DNA strands of the 13 STR regions. Reports generally also provide a "table of alleles" showing the DNA profile of each sample. She also stated that the statistical probability of a match can also be determined by entering the alleles into a frequency database to learn how common they are in the general population.

Lambatos further testified that it is a commonly accepted practice in the scientific community for one DNA expert to rely on the records of another DNA analyst to complete her work. As mentioned, she used the DNA profile from Cellmark to match the DNA profile from the defendant's blood sample, which was contained in the ISP database. She stated that, because Cellmark was an accredited laboratory, it was required to meet "certain guidelines to perform DNA analysis for the Illinois State Police and so all those

1. When a DNA laboratory receives a sample of blood, the DNA is extracted from the fraction containing the nucleic material in the white blood cells. DNA is a tightly wound strand that measures approximately six feet in length. Uncoiled, DNA resembles a twisted ladder with rungs of the ladder made of chemicals called nucleotides. DNA has four different types of nucleotides (A: adenine, T: thymine, G: guanine, and C: cytosine) that form interlocking pairs. D. Kaye & G. Sensabaugh, *Reference Guide on DNA Evidence*, Reference Manual on Scientific Evidence 485, 491 (2d ed. 2000). It is the order (sequence) of these building blocks that determines each

person's genetic characteristics. The great majority of DNA is identical from person to person but forensic scientists commonly examine 13 specific regions, or loci, where certain nucleotide patterns are repeated again and again. These patterns are called "Short Tandem Repeats" (STRs). The number of repeated sequences determines the length of an STR. This length of repeated sequences, often called an allele, may vary between people and is what analysts measure and use for comparison. D. Kaye & G. Sensabaugh, *Reference Guide on DNA Evidence*, Reference Manual on Scientific Evidence 485, 494 (2d ed. 2000).

calibrations and internal proficiencies and controls [of the equipment used] would have had to have been in place for them to perform the DNA analysis.” Cellmark’s testing and analysis methods were generally accepted in the scientific community according to Lambatos. Lambatos, however, admitted that Cellmark had different procedures and standards for results than the ISP Crime Lab. Nevertheless, Lambatos testified that she personally developed proficiency tests for Cellmark technicians to perform. She further testified that she routinely relied on results from Cellmark and she did not observe any chain of custody or contamination problems.

The prosecutor then asked her expert opinion regarding the DNA match. Defense counsel objected and asserted that Lambatos could not rely upon the testing performed by another lab. The trial court replied, “We will see. If she says that she didn’t do her own testing and she relied on a test of another lab and she’s testifying to that. We’ll see what she’s going to say.”

Lambatos then testified that a match was generated of the male DNA profile found in the semen from L.J.’s vaginal swabs to the defendant’s male DNA profile from the defendant’s blood standard. In response to defense questioning, Lambatos restated her interpretation of the alleles at each of the 13 locations. She testified about several locations where she visually filtered out spurious alleles and “background noise” and distinguished the defendant’s profile. Lambatos concluded that in her expert opinion, the semen from L.J.’s vaginal swab was a match to the defendant. Lambatos testified that the probability of this profile occurring in the general population was one in 8.7 quadrillion black, one in 390 quadrillion white, and one in 109 quadrillion Hispanic unrelated individuals. She did not observe any degrada-

tion or irregularities in the sample from L.J.’s vaginal swab.

She stated that, in general, if “there was a question of a match, then we would investigate that further by looking at the electropherograms from all the cases involved and do some more comparisons on that.” She explained that in looking at Cellmark’s report, she interpreted it and “I did review their data, and I did make my own interpretations so I looked at what * * * they sent to me and did make my own determination, my own opinion.” While Lambatos testified to her conclusion informed by Cellmark’s report, Cellmark’s report itself was not introduced into evidence. Also, while Lambatos referenced documents she reviewed in forming her own opinion, she did not read the contents of the Cellmark report into evidence.

At the conclusion of Lambatos’ testimony, the defendant moved to strike the evidence of testing completed by Cellmark based upon a violation of his sixth amendment right to confront witnesses against him. The defendant also objected on the grounds of foundation, citing *People v. Roney*, 324 Ill.App.3d 703, 258 Ill.Dec. 356, 756 N.E.2d 338 (2001), and argued insufficient evidence was presented regarding the calibration of the Cellmark equipment. The trial court denied the defendant’s motion to strike. The trial court stated, “I don’t think this is a *Crawford* scenario, and I agree with the State that the evidence is—the issue is, you know, what weight do you give the test, not do you exclude it and accordingly your motion to exclude or strike the testimony of the last witness or opinions based on her own independent testing of the data received from Cellmark will be denied.”

Following this and other testimony concerning the incident, the State rested. The trial court denied the defendant’s motion for a directed finding. The defendant

did not present any evidence in his defense. Thereafter, the trial court found the defendant guilty of two counts of aggravated criminal sexual assault, and one count each of aggravated kidnapping and aggravated robbery. The court denied the defendant's motion for a new trial.

A sentencing hearing was held. At the hearing, evidence was presented demonstrating the defendant was convicted and sentenced for the aggravated sexual assault, armed robbery, and aggravated kidnapping of G.M. in case number 84-C-12720. The defendant was paroled in February 1997 and discharged from mandatory supervised release on February 4, 2000, six days prior to the instant crime. Following the hearing, the trial court sentenced the defendant to two concurrent terms of natural life imprisonment for the aggravated criminal sexual assault counts and a concurrent term of 15 years' imprisonment for the aggravated robbery count. The court also ordered that the defendant should serve a consecutive term of 60 years' imprisonment for the aggravated kidnapping count. The court denied the defendant's motion to reconsider his sentence.

On appeal, the appellate court rejected the defendant's contentions that the State failed to establish a sufficient foundation for Lambatos' opinion (385 Ill.App.3d at 366, 324 Ill.Dec. 246, 895 N.E.2d 961); that the State failed to establish that Cellmark's equipment was adequately calibrated and properly functioning (385 Ill.App.3d at 366, 324 Ill.Dec. 246, 895 N.E.2d 961); and that the State failed to establish a sufficient chain of custody based upon Cellmark's handling of the evidence (385 Ill.App.3d at 367, 324 Ill.Dec. 246, 895 N.E.2d 961).² The appellate court next rejected the defendant's argument that the results of Cellmark's testing and analysis

were testimonial in nature and therefore Lambatos' expert testimony thereto violated the defendant's constitutional right to confrontation. 385 Ill.App.3d at 370, 324 Ill.Dec. 246, 895 N.E.2d 961. The court noted that the confrontation clause does not bar the use of testimonial statements for purposes other than establishing the truth of the matter asserted. The appellate court found that "Cellmark's report was not offered for the truth of the matter asserted; rather, it was offered to provide a basis for Lambatos' opinion." 385 Ill.App.3d at 369, 324 Ill.Dec. 246, 895 N.E.2d 961. The court stated, "Overall, defendant essentially requests that we require each and every individual involved in the testing and analysis of DNA to testify at trial. For obvious reasons in the abstract and for those provided in the case at bar, we decline to issue such a ruling." 385 Ill.App.3d at 370, 324 Ill.Dec. 246, 895 N.E.2d 961. Lastly, the court addressed the sentencing issue. The appellate court, following the decisions of *People v. Dixon*, 366 Ill.App.3d 848, 304 Ill.Dec. 869, 853 N.E.2d 1235 (2006), and *People v. Spears*, 371 Ill.App.3d 1000, 309 Ill.Dec. 517, 864 N.E.2d 758 (2007), and this court's decision in *People v. Palmer*, 218 Ill.2d 148, 300 Ill.Dec. 34, 843 N.E.2d 292 (2006), found that a term of years could not be served consecutive to a term of natural life. 385 Ill.App.3d at 371, 324 Ill.Dec. 246, 895 N.E.2d 961. The appellate court therefore vacated that portion of the circuit court's order imposing consecutive sentences for aggravated criminal sexual assault and aggravated kidnapping, and instead modified the defendant's sentence to impose concurrent sentences for those convictions. 385 Ill.App.3d at 371, 324 Ill.Dec. 246, 895 N.E.2d 961. Justice Cunningham filed a dissent, asserting that the prosecution

2. The chain of custody issue is presently not

before this court.

failed to lay a sufficient foundation for Lambatos' testimony. 385 Ill.App.3d at 371, 324 Ill.Dec. 246, 895 N.E.2d 961 (Cunningham, J., dissenting).

This court granted the defendant's petition for leave to appeal. 210 Ill.2d R. 315. The State has requested cross-relief concerning the appellate court's modification of the sentence.

ANALYSIS

Foundational Challenge

[1, 2] The defendant argues generally before this court that the trial court committed reversible error when it permitted Lambatos to testify that the defendant's DNA profile matched the male DNA profile of the semen in L.J.'s vaginal swabs. The defendant specifically argues that the trial court erred in admitting Lambatos' testimony regarding the match because a sufficient foundation was not established. The defendant additionally argues that Lambatos' testimony violated his sixth amendment confrontation right under *Crawford v. Washington*, 541 U.S. 36, 124 S.Ct. 1354, 158 L.Ed.2d 177 (2004). We begin with the foundational argument. We apply the abuse of discretion standard to the defendant's foundational challenge to the trial court's admission of Lambatos' expert testimony. *People v. Lovejoy*, 235 Ill.2d 97, 141, 335 Ill.Dec. 818, 919 N.E.2d 843 (2009); *People v. Sutherland*, 223 Ill.2d 187, 281, 307 Ill.Dec. 524, 860 N.E.2d 178 (2006).

The defendant contends that the trial court should not have permitted the State's forensic analyst to testify because of a lack of sufficient testimony that the Cellmark report was reliable. According to the defendant, when expert testimony relies upon data obtained from electronic or mechanical equipment, the proponent of the testimony must offer foundational

proof that the equipment was calibrated and functioning properly at the time the data was presented in order to establish that the expert's testimony is reliable. The State responds that Lambatos' testimony that Cellmark's testing was done according to valid scientific theory and reliable methodology provided a sound basis upon which Lambatos could formulate her opinion. Therefore, the State asserts that it was not obliged to present additional testimony regarding the calibration and functioning of Cellmark's equipment to admit Lambatos' expert opinion pursuant to *Wilson v. Clark*, 84 Ill.2d 186, 49 Ill.Dec. 308, 417 N.E.2d 1322 (1981). We agree with the State.

In *Wilson v. Clark*, this court adopted Rules 703 and 705 of the Federal Rules of Evidence concerning an expert's testimony at trial. *Wilson*, 84 Ill.2d at 196, 49 Ill. Dec. 308, 417 N.E.2d 1322. Former Rule 703 states in part:

"The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to the expert at or before the hearing. If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence in order for the opinion or inference to be admitted." Fed.R.Evid. 703 (amended 2000).

The court in *Wilson* noted that, in a trial context, "[b]oth Federal and State courts have interpreted Federal Rule 703 to allow opinions based on facts not in evidence." *Wilson*, 84 Ill.2d at 193, 49 Ill.Dec. 308, 417 N.E.2d 1322. Rule 705 states:

"The expert may testify in terms of opinion or inference and give reasons therefor without first testifying to the underlying facts or data, unless the court requires otherwise. The expert

may in any event be required to disclose the underlying facts or data on cross-examination.” Fed.R.Evid. 705.

Following Rule 705, we held in *Wilson* that, at trial, “an expert may give an opinion without disclosing the facts underlying that opinion.” *Wilson*, 84 Ill.2d at 194, 49 Ill.Dec. 308, 417 N.E.2d 1322. “Under Rule 705 the burden is placed upon the adverse party during cross-examination to elicit the facts underlying the expert opinion.” *Wilson*, 84 Ill.2d at 194, 49 Ill.Dec. 308, 417 N.E.2d 1322. Thus, an expert testifying at trial may offer an opinion based on facts not in evidence, and the expert is not required on direct examination to disclose the facts underlying the expert’s opinion. *Robidoux v. Oliphant*, 201 Ill.2d 324, 334, 266 Ill.Dec. 915, 775 N.E.2d 987 (2002).

This court applied *Wilson v. Clark* to DNA evidence in *People v. Sutherland*, 223 Ill.2d 187, 307 Ill.Dec. 524, 860 N.E.2d 178 (2006). There, the defendant filed a motion during trial to bar testimony from Terry Melton, the president of Mitotyping Technologies, concerning human mitochondrial DNA (mtDNA). Melton did not complete the actual laboratory “bench work” on the evidence. *Sutherland*, 223 Ill.2d at 281, 307 Ill.Dec. 524, 860 N.E.2d 178. The defendant argued that, without the lab technician’s testimony, Melton’s testimony regarding the mtDNA results was improper. We rejected that argument, holding that it was enough that Melton relied upon data reasonably relied upon by other experts in her field. *Sutherland*, 223 Ill.2d at 282, 307 Ill.Dec. 524, 860 N.E.2d 178.

Here, the trial court correctly denied defense counsel’s objection to the foundation for Lambatos’ expert opinion. It is undisputed that Lambatos was qualified as an expert in forensic biology and DNA analysis; Lambatos testified that it is the commonly accepted practice in the scienti-

fic community for a forensic DNA analyst to rely on the work of other analysts to complete her own work; and Lambatos based her opinion on information reasonably relied upon by experts in her field.

As in *Sutherland*, Lambatos testified that Cellmark’s work on the vaginal swabs in this case and the results of the PCR analysis conducted by Kooi are the types of data reasonably relied upon by experts in her field. Lambatos testified that, because Cellmark was an accredited laboratory, calibrations, internal proficiencies, and controls had to be in place for the DNA analysis to be completed in this case. These internal controls were, according to Lambatos’ testimony, ones that she personally developed. Lambatos herself reviewed Cellmark’s data, including the electropherogram, and did not have any question about the match. Rather, she used her own expertise to compare the two profiles before her. She also did not observe any problems in the chain of custody or any signs of contamination or degradation of the evidence. Lambatos ultimately agreed with Cellmark’s results regarding the male DNA profile, and then made her own visual and interpretive comparisons of the peaks on the electropherogram and the table of alleles to conclude there was a match to the defendant’s genetic profile. See P. Gianelli & E. Imwinkelried, *Scientific Evidence* § 18.04(b), at 54 (4th ed. 2009) (“in STR testing, the analyst can visually compare the two electropherograms or rely on a computerized comparison”).

We also reject the defendant’s specific complaint that there was no testimony that the instruments used by Cellmark were calibrated and functioning properly. The defendant principally relies on *People v. Raney*, 324 Ill.App.3d 703, 258 Ill.Dec. 356, 756 N.E.2d 338 (2001). *Raney* held that where the expert testimony is based upon

an electronic or mechanical device, the expert must provide some foundational proof that the device was functioning properly at the time it was used. *Raney*, 324 Ill. App.3d at 710, 258 Ill.Dec. 356, 756 N.E.2d 338. The defendant there argued that the State failed to establish a proper foundation for the admission of scientific results from the gas chromatography mass spectrometer (GCMS) machine. The court agreed, finding that the record contained no evidence regarding whether the GCMS machine was functioning properly at the time it was used to analyze the substance. Further, the *Raney* court stated an expert should be able to explain how the GCMS machine was calibrated or why she knew the results were accurate. *Raney*, 324 Ill.App.3d at 710, 258 Ill.Dec. 356, 756 N.E.2d 338, citing *People v. Bynum*, 257 Ill.App.3d 502, 196 Ill.Dec. 179, 629 N.E.2d 724 (1994). Finding a lack of such an explanation, the court concluded that the State failed to prove the defendant guilty beyond a reasonable doubt because of the lack of foundation. *Raney*, 324 Ill.App.3d at 711, 258 Ill.Dec. 356, 756 N.E.2d 338. The *Raney* court acknowledged, however, that “[i]t may not be feasible for each expert to personally test the instrument relied upon for purposes of determining what is a suspected controlled substance.” *Raney*, 324 Ill.App.3d at 710, 258 Ill.Dec. 356, 756 N.E.2d 338.

We find that the testing of narcotics using a GCMS machine is not comparable to the scientific process at issue in this case. At the defendant’s bench trial, Lambatos did not merely regurgitate results generated by a machine, as the witness in *Raney* did. Lambatos conducted an independent evaluation of data related to samples of genetic material, including items processed at both Cellmark and the ISP Crime Lab. Lambatos used her expertise and professional judgment to compare the DNA profiles. Her examination of the

different alleles from the blood sample and from the semen sample indicated a match with the defendant. She also determined the statistical probability of the match by examining the alleles and entering them into a frequency database to determine how common they are in the general population. Further, this case is distinguishable from *Raney* because Lambatos maintained that Cellmark necessarily met the threshold of proper DNA analysis because Cellmark was an accredited laboratory and followed guidelines that she had personally developed. We therefore do not accept the defendant’s invitation to broadly interpret *Raney* to find an insufficient foundation where an analyst merely relies upon data obtained from electronic or mechanical equipment.

[3] Finally, under *Wilson*, the burden is placed upon the adverse party during cross-examination to elicit facts underlying the expert opinion. *Wilson*, 84 Ill.2d at 194, 49 Ill.Dec. 308, 417 N.E.2d 1322, citing Fed.R.Evid. 705. The record reveals substantial cross-examination of Lambatos’ comparison of the DNA profile from the database to the DNA profile from the sexual assault kit. The record also reveals that the trial court, sitting as a fact finder, appropriately weighed the testimony. It stated:

“The DNA expert that testified, the last witness, was in my view the best DNA witness I have ever heard. Under detail [*sic*], lengthy complex cross-examination by the defense on every single part of her report she explains, she told what was the basis of her opinion, she was an outstanding witness in every respect. There is the issue of she didn’t do the actual test. The testing is farmed out to other labs. Some did the testing, some are an accredited lab. That was part of the playback you might say of the Illinois state police forensic division at that

time, and I agree with the State that there is no misidentification here. This is a match, this is 1 in 8.7 quadrillion, 50 times the population for the last 2000 years. It's an absolute match."

Accordingly, the issue of Lambatos' reliance on Cellmark's report went to the weight of her opinion and not its admissibility. See *Melendez-Diaz v. Massachusetts*, 557 U.S. —, — n. 1, 129 S.Ct. 2527, 2532 n. 1, 174 L.Ed.2d 314, 322 n. 1 (2009) (stating that it was not the case that "anyone whose testimony may be relevant in establishing the chain of custody, authenticity of the sample, or accuracy of the testing device, must appear in person as part of the prosecution's case"). The trial court assessed the weight of Lambatos' testimony and found it convincing.

We therefore find that the trial court did not abuse its discretion in finding a sufficient foundation for Lambatos' testimony and therefore turn to the defendant's *Crawford* argument.

Sixth Amendment

[4, 5] The trial court rejected the defense objection that his sixth amendment right was violated by Lambatos' testimony concerning Cellmark's report. The appellate court affirmed this decision, finding that the complained-of statements regarding Cellmark's report by Lambatos were not used for the truth of the matter asserted and therefore the sixth amendment was not implicated. The defendant's claim that his sixth amendment confrontation right was violated involves a question of law, which we review *de novo*. *Lovejoy*, 235 Ill.2d at 141-42, 335 Ill.Dec. 818, 919 N.E.2d 843.

[6, 7] The sixth amendment guarantees that "[i]n all criminal prosecutions, the accused shall enjoy the right * * * to be confronted with the witnesses against him." U.S. Const., amend. VI. This part of the sixth amendment is called the con-

frontation clause and applies to the states through the fourteenth amendment. *People v. Stechly*, 225 Ill.2d 246, 264, 312 Ill.Dec. 268, 870 N.E.2d 333 (2007). In *Crawford v. Washington*, 541 U.S. 36, 124 S.Ct. 1354, 158 L.Ed.2d 177 (2004), the United States Supreme Court held that the sixth amendment's "primary object" is with "testimonial hearsay." *Crawford*, 541 U.S. at 53, 124 S.Ct. at 1365, 158 L.Ed.2d at 194. Accordingly, "[t]estimonial statements of witnesses absent from trial have been admitted only where the declarant is unavailable, and only where the defendant has had a prior opportunity to cross-examine." *Crawford*, 541 U.S. at 59, 124 S.Ct. at 1369, 158 L.Ed.2d at 197. The Supreme Court added an explicit logical corollary to this statement by pointing out, in a footnote, that the confrontation clause does not bar the admission of testimonial statements that are admitted for purposes other than proving the truth of the matter asserted. *Crawford*, 541 U.S. at 59 n. 9, 124 S.Ct. at 1369 n. 9, 158 L.Ed.2d at 197 n. 9, citing *Tennessee v. Street*, 471 U.S. 409, 414, 105 S.Ct. 2078, 2081-82, 85 L.Ed.2d 425, 431 (1985); see also *Lovejoy*, 235 Ill.2d at 142, 335 Ill.Dec. 818, 919 N.E.2d 843. Stated another way, we need only consider whether a statement was testimonial if the statements at issue were, in fact, hearsay statements offered to prove the truth of the matter asserted. *Crawford*, 541 U.S. at 59 n. 9, 124 S.Ct. at 1369 n. 9, 158 L.Ed.2d at 197 n. 9; see also *Lovejoy*, 235 Ill.2d at 142, 335 Ill.Dec. 818, 919 N.E.2d 843; *People v. Johnson*, 389 Ill.App.3d 618, 631-32, 329 Ill.Dec. 225, 906 N.E.2d 70 (2009); *People v. Melchor*, 226 Ill.2d 24, 34-35, 312 Ill.Dec. 632, 871 N.E.2d 32 (2007) (vacating appellate court judgment and remanding with instructions to consider the hearsay exception first before proceeding to the sixth amendment issue).

[8–10] The hearsay rule generally prohibits the introduction of an out-of-court statement offered to prove the truth of the matter asserted therein. *Lovejoy*, 235 Ill.2d at 145, 335 Ill.Dec. 818, 919 N.E.2d 843; *People v. Tenney*, 205 Ill.2d 411, 432–33, 275 Ill.Dec. 800, 793 N.E.2d 571 (2002). Underlying facts and data, however, may be disclosed by an expert, not for the truth of the matter asserted, but for the purpose of explaining the basis for his opinion. *Lovejoy*, 235 Ill.2d at 143, 335 Ill.Dec. 818, 919 N.E.2d 843. Moreover, it is well established that an expert may testify about the findings and conclusions of a nontestifying expert that he used in forming his opinions. *Lovejoy*, 235 Ill.2d at 143, 335 Ill.Dec. 818, 919 N.E.2d 843.

The defendant argues that the State introduced the Cellmark report to establish the truth of the matter asserted and it is therefore hearsay. Without Cellmark's report, according to the defendant, Lambatos could not have given her testimony that the defendant's DNA matched the profile deduced by Cellmark. The State counters that Lambatos testified about the Cellmark tests only to explain how she formed her own opinion. Therefore, the only statement that the prosecution offered for the truth of the matter asserted was Lambatos' own opinion. According to the State, presentation of the person who prepared the DNA profile at Cellmark was not necessary for confrontation purposes. We agree with the State.

This court has long held that prohibitions against the admission of hearsay do not apply when an expert testifies to underlying facts and data, not admitted into evidence, for the purpose of explaining the basis of his opinion. *Lovejoy*, 235 Ill.2d at 142, 335 Ill.Dec. 818, 919 N.E.2d 843. In

Lovejoy, a medical examiner testified that another toxicologist detected six different types of drugs in the victim's body after conducting blood tests, indicating that poisoning caused the victim's death. *Lovejoy*, 235 Ill.2d at 141, 335 Ill.Dec. 818, 919 N.E.2d 843. The medical examiner testified that he was trained in toxicology interpretation and that the toxicology report showed lethal amounts of several medications in the victim's blood. *Lovejoy*, 235 Ill.2d at 141, 335 Ill.Dec. 818, 919 N.E.2d 843. He explained how the toxicology report added to his own physical observations during the autopsy and that it aided him in determining the cause of death. *Lovejoy*, 235 Ill.2d at 144, 335 Ill.Dec. 818, 919 N.E.2d 843. Following *Wilson v. Clark* and its progeny, we noted that experts may not only consider the reports commonly relied upon by experts in their particular field, but also to testify to the contents of the underlying records. *Lovejoy*, 235 Ill.2d at 143, 335 Ill.Dec. 818, 919 N.E.2d 843, citing *Wilson v. Clark*, 84 Ill.2d 186, 49 Ill.Dec. 308, 417 N.E.2d 1322 (1981), *People v. Pasch*, 152 Ill.2d 133, 178 Ill.Dec. 38, 604 N.E.2d 294 (1992). Quoting *People v. Pasch*, we explained:

“While the contents of reports relied upon by experts would clearly be inadmissible as hearsay if offered for the truth of the matter asserted, an expert may disclose the underlying facts and conclusions for the limited purpose of explaining the basis for his opinion. [Citation.] By allowing an expert to reveal the information for this purpose alone, it will undoubtedly aid the jury in assessing the value of his opinion.” *Lovejoy*, 235 Ill.2d at 143, 335 Ill.Dec. 818, 919 N.E.2d 843, quoting *Pasch*, 152 Ill.2d at 176, 178 Ill.Dec. 38, 604 N.E.2d 294.³

3. As we noted in *Lovejoy*, Federal Rule of Evidence 703, upon which the *Wilson* opinion was based, has been amended. Illinois has

not adopted the amended version of Rule 703, and the defendant does not ask us to consider the amended version of the rule in this case.

Accordingly, we held that the medical examiner's testimony repeating the nontestifying analyst's conclusions was not admitted for the truth of the matter asserted, but rather was introduced "to show the jury the steps [the examiner] took prior to rendering an expert opinion in this case." *Lovejoy*, 235 Ill.2d at 144, 335 Ill.Dec. 818, 919 N.E.2d 843. Consequently, there was no confrontation clause violation. *Lovejoy*, 235 Ill.2d at 145, 335 Ill.Dec. 818, 919 N.E.2d 843.

Our appellate court addressed a similar factual situation in *People v. Johnson*, 394 Ill.App.3d 1027, 333 Ill.Dec. 774, 915 N.E.2d 845 (2009). In *Johnson*, the defendant challenged an expert's testimony regarding DNA test results, arguing that he had no opportunity to cross-examine the analysts who conducted the testing. The court observed that experts are permitted to disclose underlying facts and data to the jury in order to explain the basis for their opinions. It concluded that the State offered the DNA report at issue as part of the basis for the expert opinion and no confrontation violation occurred. 394 Ill. App.3d at 1034, 333 Ill.Dec. 774, 915 N.E.2d 845.

Like *Lovejoy* and *Johnson*, Lambatos' testimony about Cellmark's report was not admitted for the truth of the matter asserted. The State introduced this testimony, rather, to show the underlying facts and data Lambatos used before rendering an expert opinion in this case. *Lovejoy*, 235 Ill.2d at 144, 335 Ill.Dec. 818, 919 N.E.2d 843. The evidence against the defendant was Lambatos' opinion, not Cellmark's report, and the testimony was introduced live on the witness stand. Indeed, the report was not admitted into evidence at all. Rather, Lambatos testified to her conclusion based upon her own subjective judgment about the comparison of the Cellmark report with the existing

ISP profile. *Cf.* P. Gianelli & E. Imwinkler, *Scientific Evidence* § 18.04(b), at 57 (4th ed. 2007) ("when technical problems materialize, it can be very difficult to interpret the electropherograms. * * * Thus, there is room for subjective judgment").

For instance, at trial, the defense attorney questioned her if she confused the defendant's DNA with L.J.'s DNA. He asked Lambatos if the alleles were not more consistent with the victim than the defendant at several loci. When asked about a specific locus called "T-POX," Lambatos responded:

"In my opinion with this profile, it is a mixture so when we have a mixture you are looking at the profile as a whole * * * and it's important to note that the alleles at each locus on a DNA molecule that we look at are very common. It is not uncommon for you and I to have the same alleles at a locus or you and I to have the same alleles. The power of this DNA comes with looking at all 13 areas of the DNA because it's that uniqueness looking at all 13 that's going to give us numbers. And here like a T-POX and in the other two that you mentioned, there are only two alleles and like I say in my opinion there are only two people in this profile and it just may so happen that they share an 8 or that they share an 11 or it may so happen that she is an 8 and 11 and he is just an 11, 11, or he is an 8, 11 and she is an 8, 8. There's only certain possibilities that can be attributed at each locus."

After defense counsel stated that Lambatos' interpretation could have erred because of a degraded sample, she stated: "Yes, it's possible to have a degraded sample but if the sample was degraded, that would be known by our earlier examination of the evidence [by Hapack].

We determine the quantity and the DNA that we have and the quality of the DNA and also after we look at the electropherograms, you can see the degradation, their specific patterns, and the data looks a certain way when it is degraded. The peaks aren't as defined. They slope off missing here and there. Different things happen with degradation, and I didn't see any evidence of degradation in this particular fraction."

The defendant's suggestion that Lambatos was merely a "conduit" for Cellmark's report and that the report was entirely dispositive of Lambatos' opinion, and thus hearsay, is not compelling. Her testimony consisted of her expert comparison of the DNA profile in the ISP database with the DNA profile from the kit prepared by Cellmark. She used her own expertise to compare the two profiles before her: the blood sample prepared by Kooi and the semen sample prepared by Cellmark. She also did not observe any problems in the chain of custody or any signs of contamination or degradation of the evidence. Lambatos ultimately agreed with Cellmark's results regarding the male DNA profile. But Lambatos additionally made her own visual and interpretive comparisons of the peaks on the electropherogram and the table of alleles to make a conclusion on the critical issue: that there was a match to the defendant's genetic profile. Accordingly, Cellmark's report was not used for the truth of the matter asserted and was not hearsay.

The defendant further asserts that the instant matter is "directly analogous" to the United States Supreme Court's recent holding of *Melendez-Diaz v. Massachusetts*, 557 U.S. —, 129 S.Ct. 2527, 174 L.Ed.2d 314 (2009). In *Melendez-Diaz*, the Court considered whether a certification by a forensic lab analyst as to the nature and weight of a controlled sub-

stance was a testimonial statement, and thus its admission in lieu of live testimony by the analyst violated the sixth amendment right to confrontation. The defendant in that case, Luis Melendez-Diaz, was charged with cocaine trafficking in an amount between 14 and 28 grams. *Melendez-Diaz*, 557 U.S. at —, 129 S.Ct. at 2530, 174 L.Ed.2d at 320. At trial, the prosecution placed into evidence white plastic bags containing a substance that resembled cocaine. *Melendez-Diaz*, 557 U.S. at —, 129 S.Ct. at 2530, 174 L.Ed.2d at 319–20. It also submitted three "certificates of analysis" showing the results of forensic analysis performed on the seized substances. The certificates reported the weight of the substances and stated that the bags "[have] been examined with the following results: The substance was found to contain: Cocaine.'" *Melendez-Diaz*, 557 U.S. at —, 129 S.Ct. at 2531, 174 L.Ed.2d at 320. The certificates were sworn to before a notary public by analysts at the State Laboratory Institute of the Massachusetts Department of Public Health as required by Massachusetts law. *Melendez-Diaz*, 557 U.S. at —, 129 S.Ct. at 2531, 174 L.Ed.2d at 320. Massachusetts law permitted the use of such affidavits to provide *prima facie* evidence of the analyzed substance's composition, quality and net weight. *Melendez-Diaz*, 557 U.S. at —, 129 S.Ct. at 2531, 174 L.Ed.2d at 320.

In a 5–4 decision, the Court held that, following *Crawford*, the analyst's certificates "were testimonial statements and the analysts were 'witnesses' for purposes of the Sixth Amendment. Absent a showing that the analysts were unavailable to testify at trial and that petitioner had a prior opportunity to cross-examine them, petitioner was entitled to "be confronted with" the analysts at trial." (Emphasis in original.) *Melendez-Diaz*, 557 U.S. at —, 129 S.Ct. at 2532, 174 L.Ed.2d at

322, quoting *Crawford*, 541 U.S. at 54, 124 S.Ct. at 1365, 158 L.Ed.2d at 194. The Court found the “case involves little more than the application of our holding in *Crawford*.” *Melendez–Diaz*, 557 U.S. at —, 129 S.Ct. at 2542, 174 L.Ed.2d at 332, citing *Crawford*, 541 U.S. 36, 124 S.Ct. 1354, 158 L.Ed.2d 177.⁴

The Court based its holding on two rationales derived from *Crawford*. First, the forensic analyst’s certificates were within the “core class of testimonial statements” in *Crawford*. Because the critical issue was whether the substance was cocaine, the Supreme Court found that “[t]he ‘certificates’ are functionally identical to live, in-court testimony, doing ‘precisely what a witness does on direct examination.’” *Melendez–Diaz*, 557 U.S. at —, 129 S.Ct. at 2532, 174 L.Ed.2d at 321, quoting *Davis v. Washington*, 547 U.S. 813, 830, 126 S.Ct. 2266, 2278, 165 L.Ed.2d 224, 242 (2006). Second, the Court stated, “not only were the affidavits ‘made under circumstances which would lead an objective witness reasonably to believe that the statement would be available for use at a later trial,’” [citation] but under Massachusetts law the sole purpose of the affidavits was to provide ‘prima facie evidence of the composition, quality, and the net weight’ of the analyzed substance.” (Emphasis in original.) *Melendez–Diaz*, 557 U.S. at —, 129 S.Ct. at 2532, 174 L.Ed.2d at 321, quoting Mass. Gen. Laws, ch. 111, § 13.

The majority explicitly rejected the suggestion that the prosecutors were required to call each person involved in the chain of custody to the witness stand. Responding to the dissent in a footnote, the majority stated:

4. Justice Thomas, in providing the fifth vote, “join[ed] the Court’s opinion in this case because the documents at issue in this case ‘are quite plainly affidavits,’ [citation]. As such, they ‘fall within the core class of testimonial

“[We] do not hold, and it is not the case, that anyone whose testimony may be relevant in establishing the chain of custody, authenticity of the sample, or accuracy of the testing device, must appear in person as part of the prosecution’s case. * * * [G]aps in the chain [of custody] normally go to the weight of the evidence rather than its admissibility.’ It is up to the prosecution to decide what steps in the chain of custody are so crucial as to require evidence; but what testimony is introduced must (if the defendant objects) be introduced live. Additionally, documents prepared in the regular course of equipment maintenance may well qualify as nontestimonial records.” (Emphasis omitted.) *Melendez–Diaz*, 557 U.S. at — n. 1, 129 S.Ct. at 2532 n. 1, 174 L.Ed.2d at 322 n. 1.

Accordingly, the Court in *Melendez–Diaz* held that the defendant’s confrontation clause right had been violated.

We find that *Melendez–Diaz* does not change our determination. In *Melendez–Diaz*, the disputed evidence was a “bare-bones statement” that the substance was cocaine, and the defendant “did not know what tests the analysts performed, whether those tests were routine, and whether interpreting their results required the exercise of judgment or the use of skills that the analysts may not have possessed.” *Melendez–Diaz*, 557 U.S. at —, 129 S.Ct. at 2537, 174 L.Ed.2d at 327. Here, Lambatos testified about her own expertise, judgment, and skill at interpretation of the specific alleles at the 13 loci, and confirmed her general knowledge of the protocols and procedures of Cellmark. Lambatos

statements’ governed by the Confrontation Clause. [Citation.]” *Melendez–Diaz*, 557 U.S. at —, 129 S.Ct. at 2543, 174 L.Ed.2d at 333 (Thomas, J., concurring).

also conducted her own statistical analysis of the DNA match. She did not simply read to the judge, sitting as a fact finder, from Cellmark's report. This is in contrast to Cellmark's report, which did not include any comparative analysis of the electropherograms or DNA profiles and was not introduced into evidence. Cellmark's electropherogram, rather, was part of the process used by Lambatos in rendering her opinion concluding that the profiles matched. Thus, Lambatos' opinion is categorically different from the certificate in *Melendez-Diaz*.

In sum, the State did not offer Lambatos' testimony regarding the Cellmark report for the truth of the matter asserted and this testimony did not constitute "hearsay." Thus, the trial court and appellate court properly concluded that *Crawford* considerations did not apply here. Lambatos disclosed the underlying facts from Cellmark's report for the limited purpose of explaining the basis for her opinion on the critical issue concerning whether there was a DNA match between the defendant's blood sample and the semen sample recovered from L.J. By allowing the expert to reveal the information for this purpose alone, it undoubtedly aided the judge, sitting as the factfinder, in assessing the value of Lambatos' opinion. *Lovejoy*, 235 Ill.2d at 143, 335 Ill.Dec. 818, 919 N.E.2d 843, quoting *Pasch*, 152 Ill.2d at 176, 178 Ill.Dec. 38, 604 N.E.2d 294; see also *Johnson*, 394 Ill.App.3d at 1034, 333 Ill.Dec. 774, 915 N.E.2d 845 ("The Cellmark report was not offered to prove the truth of its contents"). Finally, the record demonstrates that the gaps in the chain of custody went to the "weight of the evidence rather than its admissibility" (*Melendez-Diaz*, 557 U.S. at — n. 1, 129 S.Ct. at 2532 n. 1, 174 L.Ed.2d at 322 n. 1, quoting *United States v. Lott*, 854 F.2d 244, 250 (7th Cir.1988)), and our review of the record shows that Lambatos' conclu-

sion was tested "in the crucible of cross-examination." *Crawford*, 541 U.S. at 61, 124 S.Ct. at 1370, 158 L.Ed.2d at 199; see also *Delaware v. Fensterer*, 474 U.S. 15, 20, 106 S.Ct. 292, 294, 88 L.Ed.2d 15, 19 (1985) (the sixth amendment "guarantees an *opportunity* for effective cross-examination, not cross-examination that is effective in whatever way, and to whatever extent, the defense might wish" (emphasis in original)).

Sentencing

[11] We note that the defendant was subject to two mandatory natural life sentences for his aggravated criminal sexual assault convictions and a concurrent term of 15 years for the aggravated robbery conviction. The defendant was also convicted of aggravated kidnapping, for which the trial court imposed an extended-term sentence of 60 years in prison. The trial court ordered that the 60-year sentence was to run consecutively to the end of his natural life sentences. The appellate court vacated that portion of the circuit court's order imposing the consecutive sentence, and instead modified the defendant's sentence to impose concurrent sentences for those convictions. 385 Ill.App.3d at 371, 324 Ill.Dec. 246, 895 N.E.2d 961. This court recently held in *People v. Petrenko*, 237 Ill.2d 490, 342 Ill.Dec. 15, 931 N.E.2d 1198 (2010), that a sentence consecutive to a natural-life sentence was proper. We therefore reverse the appellate court on this issue and do not disturb the trial court's order.

CONCLUSION

For the foregoing reasons, the judgment of the appellate court is affirmed in part and reversed in part.

Appellate court judgment affirmed in part and reversed in part.

Justices THOMAS, KILBRIDE, GARMAN, and KARMEIER concurred in the judgment and opinion.

Justice FREEMAN specially concurred, with opinion.

Justice BURKE concurred in part and dissented in part, with opinion.

Justice FREEMAN, specially concurring:

I agree that defendant's convictions and sentences must be affirmed. With respect to defendant's appeal in which he raises several evidentiary challenges, I concur in the court's judgment for reasons other than those expressed in its opinion. With respect to the State's cross-appeal, I join in that portion of the opinion reversing the appellate court's modification of defendant's sentence.

My concerns in this case are based on the lack of foundation for Sandra Lambatos' testimony. Lambatos was employed at the Illinois State Police Crime Laboratory at the time defendant's DNA was connected to the sexual assault at issue. Lambatos testified that the male DNA profile generated from the victim's vaginal swabs matched the DNA generated from a known sample of defendant's blood. Lambatos also testified that the statistical probabilities for such a match were astronomical. The crux of defendant's argument is that Lambatos' opinion was based on a DNA profile that was generated by Cellmark Laboratory. Due to backlogs at the Illinois State Police Lab at the time of the testing, that lab often sent blood and semen samples to Cellmark, located in Maryland, in order for DNA material to be extracted from the samples. Cellmark would then amplify the extracted DNA material in order to produce a profile. The profile is thereafter used to produce a chart for comparison purposes. As defendant correctly notes, Lambatos did not

conduct any of the scientific procedures used at Cellmark to generate the male DNA profile from the victim's vaginal swabs and she had no personal knowledge of any of the conditions at the lab when the profile was generated.

The court dismisses defendant's contentions based on Lambatos' testimony that "because Cellmark was an accredited laboratory, calibrations, internal proficiencies, and controls had to be in place for the DNA analysis to be completed in this case." 238 Ill.2d at 138, 345 Ill.Dec. at 432, 939 N.E.2d at 275. The court concludes that because witnesses like Lambatos are permitted in Illinois to give an opinion without disclosing the facts or data upon which the expert bases her opinion, such testimony is sufficient. 238 Ill.2d at 137, 345 Ill.Dec. at 431, 939 N.E.2d at 274. In other words, Lambatos' foundational testimony was based upon data reasonably relied upon by other experts in her field, and defendant's appellate concerns relate to the weight of the evidence, not its admissibility. 238 Ill.2d at 137, 345 Ill.Dec. at 432, 939 N.E.2d at 274-75.

An expert may certainly base her opinion on information reasonably relied upon by other experts in the field. See, *e.g.*, *Wilson v. Clark*, 84 Ill.2d 186, 49 Ill.Dec. 308, 417 N.E.2d 1322 (1981). But that was not what occurred here. Strikingly absent from Lambatos' testimony is any information about Cellmark's extraction and amplification processes in generating the profile that was used to produce the data upon which she relied in her making comparisons. Lambatos' "testing" in this case consisted of her own reading to match up the numbers generated on the computer charts, which was derived from Cellmark's underlying scientific processes. What Lambatos failed to testify to during her examination was what occurred at Cellmark beginning from when Cellmark re-

ceived the package containing the victim's vaginal swabs and blood sample to when Cellmark analysts performed the extraction and amplification procedures. Instead, she speculated that because Cellmark was accredited, "they would have to meet certain guidelines to perform DNA analysis for the Illinois State Police so all those calibrations and internal proficiencies and controls would have had to have been in place for them to perform the DNA analysis."

Lambatos' testimony on this point is insufficient. First, with respect to the fact of accreditation, Lambatos did not identify when or by whom Cellmark received its accreditation. Whether a laboratory is accredited is a fact that can be established without the need of an expert witness. Here, Lambatos' testimony does not establish that Cellmark was accredited; rather, it was her opinion that the laboratory was accredited at the time it ran the tests. Further, Lambatos did not base her assumption that "certain guidelines * * * would have had to have been in place" on sources such as the report of another expert, *i.e.*, the written report of the technicians who generated the profile or even the lab's logbook at the time the profile was generated. See *United States v. Lawson*, 653 F.2d 299, 301-02 (7th Cir.1981) (allowing testifying psychiatrist to base opinion under Rule 703 on staff reports and defendant's interviews with other physicians); *O'Gee v. Dobbs Houses, Inc.*, 570 F.2d 1084, 1089 (2d Cir.1978) (allowing physician expert to testify under Rule 703 as to the patient's version of other doctors' opinion because expert had reports of two doctors as well as a hospital report). Lambatos' opinion regarding whether Cellmark followed proper guidelines at the time the DNA material was extracted and

amplified was not based on anything other than her rank speculation that it "had to have been done" solely because Cellmark was an accredited lab.

While I do not believe that Lambatos is required to personally verify the protocols used by Cellmark to generate the DNA profile from the swab, she, at the very least, should be able to point to something concrete in order to give her opinion as to what protocols were used at the time the profile was generated. She did not. There was *no* testimony on which protocols were used. In fact, Lambatos admitted that Cellmark used procedures and standards that were different from those used by her own employer, the Illinois State Police Crime Laboratory. Although Lambatos stated that she personally "helped develop line proficiency tests to be administered to analysts at Cellmark," nothing in her testimony revealed that the analysts who performed the DNA extraction and amplification in this case had taken, let alone passed, the tests she had developed or that, when the tests were run, they were run according to the standards preferred by the Illinois State Police Lab.

The lack of any information regarding Cellmark's generation of the male DNA profile from the victim's vaginal swabs contrasts sharply with the testimony the State produced with respect to the DNA profile generated from defendant's blood sample by Karen Kooi, upon which Lambatos also relied to read and match up the numbers on her chart. Kooi, an employee of the Illinois State Police Crime Lab at the time, testified as to the protocols she used to generate the DNA profile taken from defendant's blood.⁵ Kooi further stated that she utilized "clean lab" techniques when she generated the profile.

5. Kooi identified the national guidelines that the Illinois State Police Crime Lab follows

and testified that she followed the guidelines in this case.

This case, therefore, differs from *People v. Sutherland*, 223 Ill.2d 187, 307 Ill.Dec. 524, 860 N.E.2d 178 (2006), upon which the court primarily relies in reaching its conclusion today. There, the witness in question was an employee of the laboratory which did the DNA analysis, who not only testified at trial, but who had also testified at the *Frye* hearing. Moreover, the defendant had received from the State, pursuant to Rule 417(b), extensive information including records reflecting compliance with quality control guidelines. *Sutherland*, 223 Ill.2d at 280–81, 307 Ill.Dec. 524, 860 N.E.2d 178. In fact, even the defendant's own DNA expert was able to testify from the records produced that the lab's results were "clean." *Sutherland*, 223 Ill.2d at 282, 307 Ill.Dec. 524, 860 N.E.2d 178. These facts render *Sutherland* distinguishable.

Two cases from our appellate court support my point regarding foundation. In *People v. Johnson*, a panel of the First Division of the First District held that a sufficient foundation was established where the DNA expert, an actual employee of Cellmark, testified that although she did not personally perform any of the testing used to generate the male DNA profile from the sexual assault kit, she based her opinion on records used in the ordinary course of business. *People v. Johnson*, 389 Ill.App.3d 618, 329 Ill.Dec. 225, 906 N.E.2d 70 (2009). In particular, the witness relied on a written Cellmark report, which indicated that 10 Cellmark analysts had been involved in the lab work in the case and that all the methods used, conclusions and results reached were to a reasonable degree of scientific certainty. *Johnson*, 389 Ill.App.3d at 626–27, 329 Ill. Dec. 225, 906 N.E.2d 70. Another witness, who like Lambatos was employed by Illinois State Police, testified that he compared the Cellmark-generated male DNA profile to the DNA panel he had generated

from saliva obtained from the defendant and concluded that they were a match. Like Lambatos, he testified as to the statistical probabilities of the match. In holding that an adequate foundation for Cellmark's work had been established for the Cellmark witness, the court found it significant that the witness actually worked for Cellmark, which was the lab that generated the DNA profile from the victim's samples. *Johnson*, 389 Ill.App.3d at 629–30, 329 Ill.Dec. 225, 906 N.E.2d 70. She also performed an independent review of the work to make sure all of the procedures done at the lab were followed correctly, which the court held was sufficient foundation upon which to partially base her assessment and conclusion. *Johnson*, 389 Ill.App.3d at 630, 329 Ill.Dec. 225, 906 N.E.2d 70. I note that the court stressed, in reaching its conclusion, that the foundational testimony was stronger than that in this case, specifically citing the Third Division's opinion in this case. *Johnson*, 389 Ill.App.3d at 629, 329 Ill.Dec. 225, 906 N.E.2d 70.

Similarly, in *People v. Johnson*, 394 Ill. App.3d 1027, 333 Ill.Dec. 774, 915 N.E.2d 845 (2009), a panel from the Sixth Division of the First District held that a sufficient foundation was established where the DNA expert, again an actual employee of Cellmark, testified not only about the proper procedures that were expected to be utilized at her lab, but that the case file indicated that those procedures had been followed with respect to the DNA profile in question. To reach this conclusion, the witness relied on the records of other Cellmark employees, which indicated that the proper procedures had been followed. Therefore, although the witness did not perform any of the testing, her testimony showed a sufficient foundation of Cellmark's procedures and specifications upon which to partially base her assessment and

conclusion. *Johnson*, 394 Ill.App.3d at 1040, 333 Ill.Dec. 774, 915 N.E.2d 845. The court stressed that the foundation in the case was stronger than that found sufficient by the appellate court in this case.

Lambatos' testimony is demonstrably different from the testimony in either of the *Johnson* opinions. Lambatos' direct testimony was based on two documents offered into evidence by the State, which consisted of two shipping manifests from FedEx. One manifest showed that the victim's vaginal swabs and blood standards were sent to Cellmark from the Illinois State Police Crime Laboratory on November 28, 2000, and were received by Cellmark on November 29, 2000. The second manifest showed that the victim's samples were "sent back from Celmark [*sic*]" on April 3, 2001, along with samples from "other cases" that had nothing to do with the present case. Lambatos testified that she relied on these two pieces of evidence when she did the work in this case. I submit that these shipping manifests are not the kind of "facts or data" contemplated by this court in *Wilson*. Unlike the witnesses in the *Johnson* cases, Lambatos was not a Cellmark employee. She did not rely on the detailed type of reports that those witnesses relied upon. She did not know who performed the tests at Cellmark nor could she testify as to what protocols, if any, they followed. The shipping manifests, which are not enough to even establish a proper chain of custody once the samples reached their destination at Cellmark, certainly cannot establish whether a laboratory was "clean" or whether Lambatos' protocols were actually followed.

By accepting Lambatos' assumption that because Cellmark was accredited, the protocols she had personally developed for the lab to use were, in fact, used to generate the DNA profile, the court errs in finding

that an adequate foundation was laid. The court relies on the fact that Lambatos used her expertise and professional judgment to compare the DNA profiles in this case. But the problem with this is that there was no foundation established for the DNA profile generated by Cellmark. Lambatos' opinion that the DNA profile generated there matched defendant's DNA profile does not change that fact. It is certainly the law that alleged infirmities in the performance of a test usually go to the weight of the evidence, not to its admissibility. 238 Ill.2d at 141, 345 Ill.Dec. at 433-34, 939 N.E.2d at 276-77. Courts should not automatically exclude scientific evidence whenever a forensic analyst deviates from a correct test protocol in minor respects; instead, the deviation would have to materially affect the outcome in order to warrant exclusion. E. Imwinkelried, *The Debate in the DNA Cases Over the Foundation for the Admission of Scientific Evidence: The Importance of Human Error as a Cause of Forensic Misanalysis*, 69 Wash. U.L.Q. 19, 46 (1991). Here, however, Lambatos could not offer any testimony to establish *any protocol*. Contrary to what the court rests its analysis upon, there is simply no foundational evidence to "weigh."

Last, and of equal importance, the court today implies that the scientific process involved in DNA analysis is "not comparable" to narcotics Gas Chromatography Mass Spectrometer (GCMS) testing because Lambatos did not "regurgitate" the results from Cellmark as experts do with respect to GCMS test results. 238 Ill.2d at 141, 345 Ill.Dec. at 432-33, 939 N.E.2d at 275-76. Lambatos took on faith the DNA profile generated by Cellmark from the victim's samples, assuming that because the lab was accredited all quality controls were in place when the profile was created. This seems no different from how expert witnesses in drug cases view

the results from the GCMS machine. Unfortunately, it has been well-documented in DNA cases that “[q]uality control and quality assurance procedures that are followed religiously in some labs are ignored or followed intermittently in others.” W. Thompson, *Tarnish on the “Gold Standard”: Understanding Recent Problems in Forensic DNA Testing*, 30 *Champion* 10, 11–12 (January–February 2006). The failure to employ quality control and quality assurance procedures can result in DNA matches in criminal cases that are wrong because of sample contamination or misconduct on the part of the technician. 30 *Champion* at 11–12. This explains why an adequate foundation is as essential in DNA cases as it is in drug cases. Given the impact a DNA match has on the trier of fact, courts must be vigilant in ensuring that DNA evidence is admitted with proper foundation. This is particularly so in jury cases where lay people might not be able to appreciate arguments which go to weight once they hear of a match that is one in a billion.

Based on the foregoing, I would hold that the foundation for Lambatos’ testimony was insufficient, and the circuit court abused its discretion in admitting it. Based on my resolution of defendant’s foundational challenge, I need not reach defendant’s sixth amendment confrontation clause argument.

Although I believe the circuit court abused its discretion by admitting Lambatos’ testimony without proper foundation, the error does not require a new trial. The testimony of a single witness, if it is positive and the witness credible, is sufficient to convict a defendant. *People v. Smith*, 185 Ill.2d 532, 541, 236 Ill.Dec. 779, 708 N.E.2d 365 (1999). In this case, the trial judge specifically found defendant guilty on the basis of the victim’s testimony, which he characterized as “highly cred-

ible.” The trial judge also commented specifically on the strength of the victim’s lineup identification and her in-court identification. The judge found the victim to be “an outstanding witness” and believed her testimony “a hundred percent.” These findings indicate to me that the error in admitting Lambatos’ testimony was harmless. On that basis, I would affirm the convictions.

Justice BURKE, concurring in part and dissenting in part:

I join the part of Justice Freeman’s special concurrence that concludes that the circuit court abused its discretion in admitting Lambatos’ testimony. I write separately because I disagree with the majority’s resolution of the consecutive-sentencing issue. The defendant was sentenced to two concurrent natural-life terms for the aggravated criminal sexual assault counts and a concurrent 15-year term for aggravated robbery. Defendant received an additional 60-year prison term for aggravated kidnapping, to be served consecutively to the natural-life terms. The appellate court held, pursuant to our decision in *People v. Palmer*, 218 Ill.2d 148, 300 Ill.Dec. 34, 843 N.E.2d 292 (2006), that a term of years could not be served consecutively to a term of natural life. Accordingly, the court vacated that portion of the circuit court’s order imposing consecutive sentences and modified defendant’s sentence to impose concurrent sentences. 385 Ill.App.3d at 371, 324 Ill.Dec. 246, 895 N.E.2d 961. The majority now reverses the appellate court. Relying on *People v. Petrenko*, 237 Ill.2d 490, 342 Ill.Dec. 15, 931 N.E.2d 1198 (2010), which overruled *Palmer* on this point, the majority in the case at bar has held that a sentence consecutive to a natural-life sentence was proper. For the same reasons set forth in my partial concurrence and partial dissent in *Petrenko*, I do not be-

lieve that good cause exists to overrule *Palmer*. Therefore, I would affirm the appellate court below on the consecutive-sentencing issue.



238 Ill.2d 177

345 Ill.Dec. 445

**WEST AMERICAN INSURANCE
COMPANY, Appellee,**

v.

**YORKVILLE NATIONAL BANK
et al., Appellants.**

No. 108285.

Supreme Court of Illinois.

Sept. 23, 2010.

Background: Commercial general liability (CGL) insurer brought action seeking declaration that, based on late notice, it had no obligation to defend or indemnify insured or its vice-president in a defamation action. Following a bench trial, the Circuit Court of the Thirteenth Judicial Circuit, La Salle County, James A. Lanuti, J., found for insured and against insurer and awarded stipulated damages, but not sanctions. Insurer appealed, and insured cross-appealed. The Appellate Court, 388 Ill. App.3d 769, 327 Ill.Dec. 889, 902 N.E.2d 1275, affirmed that insured was not entitled to sanctions, but reversed on the issue of coverage, and remanded. Insured petitioned for leave to appeal.

Holdings: The Supreme Court, Burke, J., held that:

- (1) notice of defamation suit was given within a reasonable time and did not violate notice provision;
- (2) insured's diligence in ascertaining whether coverage was available

weighed in favor of finding that delay in sending written notice of suit to insurer was reasonable; and

- (3) insurer had actual notice of defamation suit and, thus, did not suffer prejudice as a result of delay in receiving written notice.

Judgment of Appellate Court reversed; judgment of Circuit Court affirmed.

Freeman, J., dissented and filed opinion.

1. Insurance ⇌1813

In construing an insurance policy, courts must ascertain and give effect to the intentions of the parties, as expressed in the policy language.

2. Insurance ⇌1810

An insurance policy must be construed as a whole, giving effect to every provision.

3. Insurance ⇌1822

Unambiguous words in an insurance policy are to be given their plain, ordinary, and popular meaning.

4. Insurance ⇌1836

Where insurance policy language is ambiguous, courts are to construe the policy liberally in favor of coverage.

5. Insurance ⇌3147

Insurance policy notice provisions impose valid prerequisites to insurance coverage.

6. Insurance ⇌3155

An insurance policy provision requiring notice "as soon as practicable" means notice must be given within a reasonable time.

See publication Words and Phrases for other judicial constructions and definitions.