

No. _____

19-8407

IN THE

SUPREME COURT OF THE UNITED STATES

ORIGINAL

MAURO RAMIREZ

(Your Name)

— PETITIONER

vs.

STATE OF FLORIDA

— RESPONDENT(S)

FILED

FEB 17 2020

OFFICE OF THE CLERK
SUPREME COURT, U.S.

ON PETITION FOR A WRIT OF CERTIORARI TO

SECOND DISTRICT COURT OF APPEAL

(NAME OF COURT THAT LAST RULED ON MERITS OF YOUR CASE)

PETITION FOR WRIT OF CERTIORARI

MAURO RAMIREZ, 504945

(Your Name)

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(City, State, Zip Code)

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QUESTION(S) PRESENTED

1. Whether the State must establish the reliability and accuracy of the lab instrumentation used for electrophoresis and other preliminary DNA analyses before DNA test results obtained by such instrumentation are placed into evidence ?
2. Whether the admission at trial of DNA test results without first providing an adequate foundation establishing the reliability and accuracy of the instrumentation used for electrophoresis and other preliminary DNA analyses deprived the accused of the Equal Protection, Due Process, and a Fair Trial guaranteed by the 5th, 6th and 14th Amendments?

LIST OF PARTIES

- ☒ All parties appear in the caption of the case on the cover page.
- ☐ All parties **do not** appear in the caption of the case on the cover page. A list of all parties to the proceeding in the court whose judgment is the subject of this petition is as follows:

RELATED CASES

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IN THE
SUPREME COURT OF THE UNITED STATES
PETITION FOR WRIT OF CERTIORARI

Petitioner respectfully prays that a writ of certiorari issue to review the judgment below.

OPINIONS BELOW

☐ For cases from **federal courts**:

The opinion of the United States court of appeals appears at Appendix _____ to the petition and is

- ☐ reported at _____; or,
☐ has been designated for publication but is not yet reported; or,
☐ is unpublished.

The opinion of the United States district court appears at Appendix _____ to the petition and is

- ☐ reported at _____; or,
☐ has been designated for publication but is not yet reported; or,
☐ is unpublished.

☒ For cases from **state courts**:

The opinion of the highest state court to review the merits appears at Appendix A to the petition and is

- ☐ reported at _____; or,
☒ has been designated for publication but is not yet reported; or,
☐ is unpublished.

The opinion of the _____ court appears at Appendix _____ to the petition and is

- ☐ reported at _____; or,
☐ has been designated for publication but is not yet reported; or,
☐ is unpublished.

JURISDICTION

☐ For cases from **federal courts**:

The date on which the United States Court of Appeals decided my case was _____.

☐ No petition for rehearing was timely filed in my case.

☐ A timely petition for rehearing was denied by the United States Court of Appeals on the following date: _____, and a copy of the order denying rehearing appears at Appendix _____.

☐ An extension of time to file the petition for a writ of certiorari was granted to and including _____ (date) on _____ (date) in Application No. ____ A ____.

The jurisdiction of this Court is invoked under 28 U. S. C. § 1254(1).

☐ For cases from **state courts**:

The date on which the highest state court decided my case was 01/20/2019.
A copy of that decision appears at Appendix A.

☐ A timely petition for rehearing was thereafter denied on the following date: _____, and a copy of the order denying rehearing appears at Appendix _____.

☐ An extension of time to file the petition for a writ of certiorari was granted to and including _____ (date) on _____ (date) in Application No. ____ A ____.

The jurisdiction of this Court is invoked under 28 U. S. C. § 1257(a).

CONSTITUTIONAL AND STATUTORY PROVISIONS INVOLVED

Fifth Amendment: No person shall be held to answer for a capital, or otherwise infamous crime, unless on presentment or indictment of a Grand Jury, except in cases arising in the land or naval forces, or in the Militia, when in actual service in time of War or public danger; nor shall any person be subject for the same offence to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.

Sixth Amendment: In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the State and district wherein the crime shall have been committed, which district shall have been previously ascertained by law, and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the assistance of counsel for his defense.

Fourteenth Amendment, Section 1: All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

STATEMENT OF THE CASE

Petitioner, Mauro Ramirez, was convicted after jury trial of attempted murder in the second degree with a firearm; battery; and giving false information to a law enforcement officer. His lowest permissible sentence scored was 92 months. After a sentencing hearing Petitioner was sentenced to life for the attempted murder and to time served for the other two charges.

The State's key witnesses were the victim Jesus Moreno-Martinez (T 205-228); Pedro Carillo, a security guard (T 229-260); and Rachel Oefelein, a DNA analyst (T 430-483).

According to Moreno-Martinez, he was on his cellphone outside El Paisano's when he felt somebody "hitting me behind my head." When he turned around he saw Petitioner "reaching for his belt, which I seen a gun." "He was going to point it at me so I ran between the cars." Moreno-Martinez did not realize he was shot and he went inside El Paisano's. He remembered getting in an ambulance and being taken to the hospital.

Although his medical records showed he ingested cocaine and marijuana that night, he testified that he did not have anything other than a beer. Moreno-Martinez had a prior conviction for a crime of dishonesty.

Carillo testified he worked security at El Paisano's that night and knew both Moreno-Martinez and Petitioner as regular customers of the bar. He searches everyone prior to allowing them in the bar. He noticed Moreno-Martinez outside on his cellphone and then, Petitioner "went straight to punch [him]." After Petitioner punched Moreno-Martinez "He pulled the revolver right out of his pocket or waist, I don't know. He pull it and then he shoot him. That's it." Carillo held

Petitioner, who dropped a gun and the maintenance worker, Arturo, picked it up. He told him to put it in the safe. Carillo identified the revolver he saw Petitioner shoot Moreno-Martinez with in a photo. He turned Petitioner over to law enforcement.

On cross-examination Carillo said he saw Petitioner punch Moreno-Martinez "in the eye." Then, Moreno-Martinez asked Petitioner what he was doing. Defense counsel impeached Carillo with his deposition transcript when he said it was the victim's friends who came out of the bar and beat up Petitioner.

The maintenance worker, Arturo, did not testify.

The State's witness, Rachel Oefelein, testified regarding results of DNA analysis on the firearm, as compared to Petitioner's Known DNA (T 430). She was a senior DNA analyst with DNA Labs International, a private DNA laboratory.

DNA Labs was provided with buccal swabs from Petitioner. Oefelein was not the actual analyst who was assigned to Petitioner's analysis. Rather, she only was the "reporting analyst." (T 437)

DNA Labs received three evidentiary items including swabs from the grip of the firearm (State Exhibit 28); swabs from the sight of the firearm (State Exhibit 29); and swabs from HS1 (State Exhibit 30).

Oefelein testified what her lab looks for when they receive an evidence sample: After serology testing is done to see if body fluids are present then half or all of the sample is taken forward for DNA analysis. (T 440) "And that's where we try to determine whether or not DNA is present in the item." (T 440)

Once the lab has quantified how much DNA is there, it goes through an amplification process where "millions of copies of that DNA" are made which makes it easier for the lab to analyze and read that profile downstream. (T 440)

Oefelein testified the last step is determining what that profile is. When asked how many total locations an individual would have in the profile, she stated: "In this particular instance we're looking at 24 different locations." (T 441) The defense objected on the grounds that the State did not demonstrate the witness had personal knowledge that Petitioner in fact had 24 different locations in his DNA profile which was overruled. At the bench, counsel made a more detailed objection:

I'm going to object.... she wasn't the one who even did the testing.... she's not going to be able to testify who did that, and what they did on.... she doesn't have the personal knowledge of the actual test that was done

(T 442) The Trial court overruled the objection based on *Smith v. State*, 28 So.3d 838 (Fla. 2009) (T 442-443)

The testimony continued. Referring to State's Exhibit 28 (grip of the firearm) Oefelein was asked: "Did you or your lab follow the same procedure that you just described to attempt to extract DNA from the samples that were provided to you as State's Exhibit 28?" (T 443) Counsel once again objected on the ground that the witness did not know whether or not the co-employee actually followed recognized procedures or not. Again, the court overruled, citing *Smith*. (T 443)

Oefelein went on to say that Exhibit 28 (grip of the

firearm) was inconclusive for DNA comparison purposes. The identity of that DNA contributor could not be determined and she did not know how many individuals contributed to that DNA sample. (T 443-446) The same was true regarding Exhibit 30 (swabs from the trigger, hammer, cylinder door, ejector and the cylinder of the firearm). The results were "inconclusive for comparison purposes." (T 446)

She said that Exhibit 29 (swabs from the sight of the firearm) was suitable for comparison and Petitioner "could not be ruled out as a possible contributor." (T 447-448) Accordingly it underwent an additional analysis. (T 448) Before Oefelein could opine what her determination was, counsel objected. The court said: "I'm going to sustain the objection. I don't think the witness' expertise and population frequencies, I haven't heard any testimony about the product rule, so you're not there yet before you can introduce any numbers, so the objection is sustained." (T 448-449)

Oefelein then discussed probabilistic genotyping. She explained it is a method of DNA analysis and her lab uses the software program called STRmix. (T 450) Probabilistic genotyping is the software and the result is a statistic "we call likelihood ratio" which ratio is generated through the STRmix software. (T 454)

Out of the 24 locations, Exhibit 29 provided information at 13 locations which was "adequate" for comparison. (T 456) Although there was no indication of a second contributor for Exhibit 29, "That doesn't mean that there isn't a second contributor beneath the limits of detection...." (T 459)

She testified that more than one contributor was possible to the sample taken from the grip of the firearm. (State's Exhibit 28) (T 458) And for Exhibit 30 (swabs from the trigger, hammer, cylinder door, ejector and the cylinder of the firearm) her lab did not "have any clear indication of a second contributor" however there were only four locations for comparison which was not statistically meaningful. (T 459)

When asked if she compared the DNA profile from Petitioner to Exhibit 29 the defense objected and the following argument occurred at the bench:

[DEFENSE]: There's no information about the actual machine that she's using. All that we know is she conducted a test, and it's very clear that she conducted it on a test-similar to like the Intoxilyzer where you have to show that it's a valid one, that it has been calibrated or calculated - we're talking about software. We don't know which machine she used, who's done anything - all we know is there is this random machine. So I don't think that they have done enough to lay the foundation that this is a reliable test, and it has to be reliable before they could actually submit it as evidence.

[STATE]: I think she's testified that the equipment in her lab goes through periodic checks, and proficiency testing with herself and her lab technicians, so I do think that an appropriate foundation has been laid for her to testify.

THE COURT: The objection is sustained at this juncture. I believe there is insufficient testimony at this time about the nature of the scientific instruments involved, so objection is sustained.

(T 460-461) The trial court sustained the defense's objection holding there was insufficient testimony about the nature of the scientific instruments involved.

Oefelein's direct-examination continued but the record evinces that the State failed to lay an adequate foundation for the admission of Oefelein's opinion, in that testimony regarding which brand of instrument (hardware) was in fact utilized, how it was used, precautions such as controls to test the accuracy and reliability, calibration, etc. to run the DNA tests was completely lacking. (T 462-471)

In spite of the State's shortcoming and the defense's objections, Oefelein was allowed to say the DNA profile obtained from the sight of the firearm indicated one contributor. (T 471) Further, it was "160 million times more probable that the sample originated from Mauro Ramirez than someone else and therefore there was "extremely strong support that Mauro Ramirez contributed to this DNA profile rather than an unknown person." (T 471)

On cross-examination, Oefelein testified that the original serology was conducted by Justin Rodgers, a non-testifying technician. (T 474)

Petitioner was the only witness on behalf of the defense. He testified that after expending a short time with some friends inside El Paisano's he went outside where he met Arturo, the maintenance worker. While standing behind the taco stand a shorter guy with a cap called him over and before he made it to him "somebody came and struck me from behind and hit me in my jaw right here," and knocked his hat off. (T 503-504) Petitioner was "discombobulated," got scared and ran between two cars when "I ran into a guy with a gun in my head." (T 504-505) "I didn't know what to

think or nothing, I just grabbed it and struggled with my hand, and it popped in my hand...." (T 505) The next thing he remembered was being put under arrest; he was in and out of consciousness. He felt like his jaw was broken and blood was coming out of his wound. He was taken to the hospital where they did a CAT scan, and used some glue stich on his facial wound. (T 506-507)

On cross-examination, Petitioner testified he did not remember exactly where the person(s) was standing when they hit him. (T 513) He struggled for the gun from the person who accosted him, and "it popped," or went off when it was in his hand during the struggle. (T 513) Petitioner said testimony from the victim Jesus Moreno-Martinez and State's witness Pedro Carillo that Petitioner pulled out a gun and shot Moreno-Martinez was false. (T 513)

In closing arguments, defense counsel pointed out that the victim had testified he saw Petitioner pulling a gun "right out and aim it at me," but that the victim had also said "I had no idea I was shot." (T 565)

Defense counsel argued "He didn't know he got shot because he wasn't there, he wasn't involved with the gun and he got shot." (T 565-566) The defense's theory was that the victim had been accidentally shot by somebody else: "We're not contesting that he got shot. He's a victim, he got shot by somebody. But was it attempted murder? No. Accident? Yes." (T 566)

REASONS FOR GRANTING THE PETITION

Petitioner's case presents "questions whose resolution will have immediate importance far beyond the particular facts and parties involved." (quoting Justice Vinson's speech (1949)). This Court has made clear that "importance" means importance "to the public as distinguished from that of the parties" *Layne & Bowler Corporation v. Western Well Works, Inc.*, 261 U.S. 387, 393; 43 S. Ct. 422, 423 (1923).

The resolution of this case is not only important to Petitioner but to a thousands of others similarly situated notwithstanding the nature of the proceedings involved, i.e., criminal or civil; and therefore, for the facts and reasons stated above and below, Petitioner's case is worthy of this Honorable Court's review.

The questions here presented are whether the State must establish the reliability and accuracy of the lab instrumentation used for electrophoresis and other preliminary DNA analyses **before** DNA test results obtained by such instrumentation are placed into evidence; and whether the admission at trial of DNA test results without first providing an adequate foundation establishing the reliability and accuracy of instrumentation used for electrophoresis and other preliminary DNA analyses deprived the accused of the Equal Protection and Due Process of law guaranteed by the Fifth and Fourteenth Amendments.

The Fifth Amendment to the Constitution provides that "[n]o person shall *** be deprived of life, liberty, or property,

without due process of law." Fifth Amend. U.S. Const. By the same token, the Fourteenth Amendment's Due Process Clause guarantees that neither "shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws." Fourteenth Amend. section 1, U.S. Const.

In the instant case, the admission of an expert witness' opinion based on the ultimate results of DNA testing without providing any details whatsoever on the reliability and accuracy of the instrumentation used to conduct the electrophoresis and serology examination on DNA samples denied Petitioner the fair trial guaranteed by the Fifth and Fourteenth Amendments.

The specific issue in this case, was that the State's expert witness, Rachel Oefelein, failed to provide any foundation to demonstrate the reliability and the accuracy of the lab instrumentation which was used to conduct the various tests she testified to. The state trial court sustained the initial objection, holding there was insufficient testimony about the nature of the scientific instruments involved. (T 460-461)

Petitioner challenged State witness Oefelein on the basis she never established the reliability and accuracy of the instrumentation used by DNA Labs International in the course of the various DNA analyses performed by the non-testifying technicians in her lab, such as Justin Rodgers, the serologist.

Pursuant to § 90.702, Florida Statutes:

If scientific, technical, or other specialized knowledge will assist the trier of fact in understanding the evidence or in determining a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education may testify about it in the form of an opinion or otherwise, if:

(1) The testimony is based upon sufficient facts or data;

(2) The testimony is the product of reliable principles and methods; and

(3) The witness has applied the principles and methods reliably to the facts of the case.

§ 90.702, Fla. Stat. (emphasis added)

Traditional scientific predicate has three prongs: (1) reliability of the test; (2) performance of the test by a qualified operator with proper equipment; and (3) expert explanation of the meaning of the test. *Robertson v. State*, 604 So.2d 783 (Fla. 1992); Florida DUI Handbook, David A. Demers, West Group, 2001-2002, § 6.6, p. 174

Defelein referenced a "thermal cycler" and "capillary electrophoresis" with a resulting "electropherogram":

And then we put it in what's called a thermal cycler ... And then after that, in order to obtain the DNA profile it goes through what's called capillary electrophoresis.

And,

So the STRmix software happens after all that's been done, after we've already obtained an electropherogram.

(T 462-463) (emphasis added)

Capillary electrophoresis (CE) is a family of electrokinetic separation methods performed in submillimeter diameter capillaries and in micro- and nanofluidic channels. (See, Wikipedia, citing Terabe, S. Otsuka, K. et al (1984). "Electrokinetic separations with micellar solutions and open-tubular capillaries." Anal. Chem. 56 111-113.)

Although Oefelein never discussed or identified the actual lab instrumentation utilized by DNA Lab International to perform the electrophoresis she mentioned, a typical instrument used to perform this test is the ABI PRISM 310 Genetic Analyzer/DNA Sequencer. (See, BlueLionBio.com for a description and explanation of this equipment.)

It is beyond debate that lab instruments of all types require regular calibration to ensure accuracy of data. For example, a casual reference to the history of litigation surrounding the Intoxilyzer for breath tests in DUI cases establishes the importance of calibration and certification of lab instruments. See e.g., *Robertson*, supra; and Florida DUI Handbook, supra.

Other jurisdictions are in agreement about this requirement, see e.g., *United States v. McAdams*, 2018 U.S. Dist. LEXIS 63837 at 37 (E.D. (Cal.) April 16, 2018) ("[I]nstruments are maintained by the Department of Justice Labs and accuracy checks are performed by the individual departments...."); *United States v. Foster*, 829 F. Supp.2d 354, 363 (W.D. (Vir.) 2011) ("While the Certificate of Instrument Accuracy may be non-testimonial, it must still meet all the requirements of the Federal Rules of Evidence to

be admitted into evidence.""); *Streck, Inc. v. Research and Diagnostic Systems, Inc.*, 2010 U.S. Dist. LEXIS 104461 (U.S. Dist. (NEB.) September 30, 2010) ("[T]his action involves hematology control products. These products are used to test automated hematology instruments *** The purpose of a control is to monitor the performance of a machine. Laboratories, hospitals, clinics, and doctors' offices use controls to test the accuracy and reliability of the hematology instruments."); *Galiana v. McNeil*, 2010 U.S. Dist. LEXIS 82333 (S.D. (Fla.) July 5, 2010) (Director of the forensic lab testified about "the instrument his lab used to analyze blood samples... and that the standard procedures employed in his lab including calibration of the instrument, use of control materials to ensure accuracy, and the cross-verification to arrive at final results.")

In Petitioner's case, the court actually sustained Petitioner's objection, holding there was insufficient testimony about the nature of the scientific instruments involved. (T461) But, despite that, the State's second attempt to address the "nature of the scientific instruments involved" fell short. There was never any actual testimony regarding instrumentation.

The State and its witness was so focused on defending the STRmix (software) they ignored the objections regarding the lab's instrumentation (hardware).

The results of the STRmix analysis was dependent on the results obtained from the non-testifying Technician's thermal cycling and the electrophoresis tests conducted on one or more lab machines.

Accordingly, Petitioner's rights to a fair trial and due process were violated when Oefelein was allowed to

offer her expert opinion to the jury without laying a foundation that the lab instrumentation utilized to conduct the thermal cycling and the electrophoresis was reliable.

A careful reading of Oefelein's continued testimony shows she never addressed Petitioner's objection as sustained by the court. Rather, her testimony simply went on to explain the theory and dynamics of the STRmix software, and why the software was reliable. That testimony did not address the lab equipment used to conduct the electrophoresis and serology she discussed.

In Florida, DNA testing is a two-step process that includes a biochemical component and a statistical component. *Butler v. State*, 842 So.2d 817, 827 (Fla. 2003). A biochemical analysis is employed to determine whether two DNA samples look alike, then a statistical analysis is employed to determine the frequency of that profile in the population. *Id.* at 827-28 (citing *Brim v. State*, 645 So.2d 268 (Fla. 1997)).

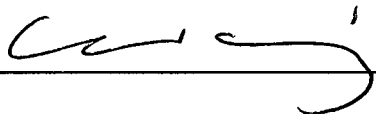
Here, it is that biochemical component that was never addressed by Oefelein with an adequate foundation.

The Fifth and Fourteenth Amendments guarantee that "life, liberty, or property" may not be taken "without due process of law." In this case, the State failed to provide an adequate foundation to establish the reliability and accuracy of DNA lab instrumentation used by its witness to arrive at her expert opinion Petitioner's DNA was the only DNA on the firearm that was suitable for comparison.

CONCLUSION

The petition for a writ of certiorari should be granted.

Respectfully submitted,



Date: 2-14-20