

Defendant: [Case Name]

Case No.: [Case #]

Defense Expert: Janine Arvizu

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Areas of Expertise:

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JANINE ARVIZU



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Expert's Background

1. Headspace gas chromatography, auditing labs.
2. Serves as a quality assurance consultant and a certified quality auditor. [Vermont v. Smith 2/7/13 p. 14, ln. 1](#)
3. Bachelor of Science degree in Biochemistry from California Polytechnic State University at San Luis Obispo, and ABD (all but dissertation) in Chemistry from University of New Mexico. [Vermont v Smith p. 14, ln. 21](#)
4. Admitted to candidacy for the Ph.D. degree in Chemistry. [Vermont v. Smith 2/7/13 p. 15, ln. 25](#)
5. Has been conducting audits for testing laboratories for many years. [Vermont v. Smith 2/7/13 p. 15, ln. 6](#)
6. Certified by the American Society for Quality as a 20 certified quality auditor. [Vermont v. Smith 2/7/13 p. 15, ln. 20](#)
7. Seems like her interest is to perform onsite lab inspections.
8. Chemist, auditor, and quality professional with more than 30 years of technical, program management, and training experience in lab operations and management, quality assurance, and interdisciplinary analytical programs. Developed and managed organizational and programmatic quality programs and has extensive experience in the quality assessment of labs and analytical data. [Arvizu CV 2015](#)
9. States she is a chemist and quality consultant and laboratory auditor. [Wi. v Garba TR p 10 L 8](#)
10. " I work for clients who use laboratory results to make very important decisions and they need to understand the reliability of the results that are reported and so I help them by doing independent assessment of laboratories and their work product." [Garba p 10 L 11-15\(2015\)](#)
11. Bachelor of Science in Biochemistry. Working on Doctorate without dissertation. [Wi v Garba p 11 L 8](#)

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12. Explains her work as an independent quality assessment for 30 years [Wi v Garba p 11 Line 21](#)
13. Member of American Chemical Society and the American Society for Quality [Wi v Garba p 12 L 22](#)
14. Testified over 100 times. [Wi v Garba p 17 L 4](#)
15. Never been precluded. [Wi v Garba p 18 L4.](#)
16. Reviews gas spec data for release. [Wi v Garba P 20 L 4](#)
17. Laboratory quality consultant and auditor - [Beltran Tr.p. 66, Ln.2](#)
18. Not a forensic chemist - [Beltran Tr.p. 109, Ln.17-19](#)
19. "I have a bachelor of science degree in biochemistry from California Polytechnic State University in San Luis Obispo, California, an ABD in chemistry from the University of New Mexico. That effectively means all but dissertation. I'm a candidate for the Ph.D. degree, have completed all coursework and exams but not dissertation." [Beltran Tr.p. 66, Ln.12-17](#)
20. Four year degree. Started a Doctoral program. Quit. Never went back. Claims she has a Doctorate ABD, which means All But Dissertation, which means she does not have a Doctorate! [Pa v Johnson TR p 152 L12](#)
21. Claims she authored the quality standard the US Navy used as a basis for approving the govt and commercial labs that did analytical work for the Navy. [Pa v Johnson TR p 144 L 21](#)

Bias/Interest/Motive

1. "Yeah, I get paid to assess data regardless of who is using the results." [Patrou 12/3/07 p. 66, ln. 13](#)
2. Hired by defense to conduct a data quality assessment on a particular case, and then basically get back to the lawyer as to whether or not the data are reliable and can be supported, the conclusions can be supported based on the record. [Patrou 12/3/07 p.124, ln. 6-10](#)
3. Works as a defense expert primarily as a consultant. [Patrou 12/3/07 p. 125, ln. 12](#)
4. Has only ever been employed by defense attorneys for forensic testing cases. [Patrou 12/3/07 p. 125, ln. 18](#)

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5. \$150/hour [Patrou 12/3/07, p. 125, ln. 21](#)
6. Paid \$150 per hour “regardless of whether I'm reviewing data or traveling or testifying.” [Vermont v. Smith 2/7/13 p. 23, ln. 4](#)
7. Believes that criminal cases/criminal forensic labs have significantly lower standards than she's used to (having worked in environmental labs) [Arizona v. Marrama 6/23/09 p. 88, ln. 6-13](#)
8. Recently (Fall 2014) was on the faculty for the Wisconsin Public Defender's. [Wi v Garba p 16 L 24- P 17 L2](#)
9. Only testifies for defense attorneys in criminal cases [Wi v Garba p 25 L 7](#)
10. Since, 2002-2015, her employment is 100% of the time as a quality consultant independent contractor is for the defense. [Wi v Garba p 26 line 4- 17.](#)
11. Claims the Wisconsin Lab lied about samples in a written article. [Wi v Garba p 48 L18](#)
12. Cannot say jagged hump theory has any effect on ethanol results. [Wi. v Garba p 54 Line 13- 25](#)
13. I try to be an advocate for science and scientific data quality. I guess that's where my passion lies. I don't feel like I'm a party to one side or another. I'm perfectly willing to give my opinions to either side in a courtroom. [Beltran Tr.p. 75, Ln.1-6](#)
14. Always testified for the defense though - [Beltran Tr.p. 75, Ln.10](#)
15. Arvizu testifies about laboratory methodologies that never take into account the reality of Impaired Driving. She expects the same collection methods she would use when having a water or paint sample tested. The fact that a driver is transported somewhere for a blood draw and the blood is then transferred to a lab is never an excuse for having the same pristine conditions and methods as a the Dept of Energy testing lab in which she once worked. She basically has a problem with all methodology in the criminal justice system. Too often prosecutors do not note this difference. Her samples never came from sloppy drunks in an emergency room. She apparently would never have such a sample tested. She also ignores efficiencies that come from repetitive methods used in crime labs. She does not believe an aliquet (crunching a tube top with a crimping device can be done in seconds.

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Anyone who has toured a tox lab knows better. Such methodology could be proven to contradict her with a 10 second video of the process. She criticizes pipetting methods using far fetched possibilities of error, but claims those far fetched possibilities are "possible" so she as a quality control auditor cannot have confidence in the methodology. She would want the tester to have a written document for every pipetting, which might satisfy her, but would crash the lab. Her expectations are for absolute perfection as if the lab had all the time in the world and was only testing a sample a day! She has no ability to testify as to the particular test. Her quality control training was to find problems. A good question would be whether she has ever found a tox lab that fully satisfied her desired perfection. Note by TK 2/22/18

16. Testified more than 100 times always for the defense [Pa v Johnson Tr p 144 p 16](#)
17. Never testified for prosecution [Pa v Johnson P 150 Line 11](#)
18. Gets paid for time. Doesn't say rate [Pa v Johnson P 150 Line 19](#)
19. No academic forensic classes [Pa v Johnson P 150 Line 3](#)
20. No dissertation since she left in 1970's. Claims she needs 1 more chapter. When hired by defense attorney she claims "I was asked to do a quality control audit of the lab"....[State v Johnson Tr p 154 Line 19](#) (pretty slick answer. She was hired by defense to identify problems, she states it like she is a lab auditor.)
21. Talks like an under-filled blood tube must be harmful error. [Pa v Johnson P 158 L 22](#)
22. Says air could sneak into tube and contaminate sample. [Pa v Johnson TR p 160 L 3](#)
23. Her version Expired tube issue defined. [Pa v Johnson P 162 L 1](#)
24. Her version of Method validation explained [Pa v Johnson P 162 L9](#)
25. Her Criticiism of lab method explained [Pa v Johnson P 173 L 18](#)
26. Example of how her guess that a batch was not contemporaneous is now a conclusion that the methodology was wrong. [Pa v Johnson P 175 L 13](#)
27. Her pipette criticism [Pa v Johnson Page 177 L 9](#)

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28. Her method for sending pipette dilluter out for external examination by independent source before every use is an example of her far fetched desire for a system that does not and never will exist. [Pa v Johnson P 178 L 10](#)
29. Wants maintenance done in house. [Pa v Johnson P 180 L1](#)

Qualifications/Scope/Relevance

1. Quality Auditor, began with the Dept of Energy. Certified as a quality auditor thru American Society for Quality ([Patrou 12/3/07 p. 6, ln. 3-8](#))
2. BS Biochemistry California Polytech State Univ ABD Chemistry, Univ of New Mexico ([Patrou 12/3/07 p. 6, ln. 11-14](#)) (ABD is PhD track but didn't complete and defend dissertation)
3. Established and managed a full service analytical lab, Idaho National Eng. Lab ([Patrou 12/3/07 p. 7, ln. 3](#))
4. 1992 started consulting firm that audited labs for federal agencies ([Patrou, 12/3/07 p. 9, ln. 6](#))
5. Certified as a quality auditor by American Society for Quality ([Patrou, 12/3/07 p. 9, ln. 12](#))
6. Hired by defense attorneys, DOE, Navy, and defense contractors ([Patrou 12/3/07 p. 12, ln. 24](#))
7. Air quality in the laboratory is something that is important in making an [quality assurance] assessment; ([Patrou 12/3/07 p. 15, ln. 18](#))
8. Biggest issue for labs is sample integrity ([Patrou 12/3/07 p. 16, ln. 14](#))
9. GC instrument is robust, and proven technology ([Patrou 12/3/07 p. 16, ln. 15](#))
10. Don't know how off the results will be if lab's SOPs [standard operating procedures] are such that they have been unable to prevent external contaminants to the evidentiary samples and the blanks. ([Patrou 12/3/07 p. 17, ln. 13](#))
11. Sample integrity--If lab practices allow volatiles to be present where the GC is, then volatile can get in the tube. ([Patrou 12/3/07 p. 18, ln. 5](#))
12. Experience mainly in environmental testing ([Patrou 12/3/07 p. 121 ln. 8-10](#))

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13. No formal training in forensic alcohol testing ([Patrou 12/3/07 p. 121, ln. 18](#))
14. Never done forensic alcohol testing ([Patrou 12/3/07 p. 121 ln. 21](#))
15. Experience in quality assurance/quality control on a wider spectrum than forensic alcohol testing ([Patrou 12/3/07 p. 122, ln. 8-11](#))
16. Does not have a PhD. ([Patrou 12/3/07 p. 123 ln. 24-25](#))
17. Never worked in a forensic laboratory. [Vermont v. Smith 2/7/13 p. 23 ln. 9](#)
18. Never used a gas chromatograph to test for alcohol.
19. Never conducted a breath test. [Vermont v. Smith 2/7/13 p. 23 ln. 16-22](#)
20. Laboratory quality assurance consultant. ([Arizona v. Marrama 6/23/09 p. 6, ln. 15-25](#))
21. BS biochemistry california polytech state univ and AVD in chemistry from Univ of NM ([Arizona v. Marrama 6/23/09 p. 7, ln. 4-70](#))
22. Certified as a quality auditor by the American Society for Quality for a number of years, involved in the generation and insuring the quality of analytical results for many years, in excess of 25. Managed an analytical laboratory for the Department of Energy. Conducted assessments of analytical programs and data quality assessments for federal agencies including the Navy as their quality program manager. Assessed commercial and government laboratories doing analytical work for the Navy and actually wrote and authored their quality standard that they used for those assessments. ([Arizona v. Marrama 6/23/09 p. 7 ln. 9-23](#))
23. Not a member of ASCLD (American Society of Crime Lab Directors) and has never participated in any of the ASCLD inspections and assessments. ([Arizona v. Marrama 6/23/09 p. 75, ln. 11-18](#))
24. Never worked in a forensic crime lab. ([Arizona v. Marrama 6/23/09 p. 75, ln. 22](#))
25. Never tested blood on a regular basis.
26. Arvizu does not hold any credentials regarding forensic testing or laboratories nor has she performed any forensic testing. She does have experience with QA/QC, however, doesn't not have familiarity with ABFT or specific forensic accreditation.

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27. Held out by the defense as expert on reliability of forensic results including toxicology, controlled substances, DNA, gunshot residue, trace, firearms and fingerprints. (cited on Texas DWI defense website: www.txdwi.org)
28. Has observed forensic analysis of controlled substances on one occasion - on behalf of the defense - [Beltran Tr.p. 110. Ln.17-19](#)
29. Never has personally conducted a forensic chemical analysis - [Beltran Tr.p. 111, Ln.4-6](#)
30. Never has participated as an auditor during an inspection or recertification to the ASCLD/LAB 17025 standard. "No. No. ASCLD/LAB only has their own inspectors." [Beltran Tr.p. 115, Ln.22-25](#)
31. Not a forensic toxicologist. [Wi v Garba p 18 l 21](#)
32. Never conducted a test on blood alcohol [Wi v Garba p 19 L 11](#)
33. No Lab Work [Pa v Johnson Tr P 146 Line 4](#)
34. No Blood Alcohol Tests Conducted [Pa v Johnson P 147 Line 3](#)

Personal Knowledge

1. Can assess lab for contamination issue, but will never know on the day that defendant's blood was tested what the [contamination] situation was in the laboratory? No. ([Patrou 12/3/07, p. 20, ln. 1](#))
2. Can't say what any person did on any specific date/test ([Patrou 12/3/07 p. 127, ln. 1](#))
3. Conducted Training for: "bench chemist technicians, field sampling personnel, the engineers and the users of laboratory results, and in recent years, in the last decade or so, I've gone to CLE legal conferences and been training attorneys. I did a session for appellate judges at Duke on judging science and the issues associated with forensic quality." [Vermont v. Smith 2/7/13 p. 21, ln. 6](#)
4. Testified in dozens of cases. [Vermont v. Smith 2/7/13 p. 21 ln. 17](#)
5. Testified about blood testing about blood tests about a dozen times. [Vermont v. Smith 2/7/13 p. 22 ln. 19](#)

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6. Admits no one knows what the "jagged hump" means or if it has any affect on testing. [Wi v Garba p 51 L 9](#)

Lab Audit

1. Can assess lab for contamination issue, but will never know on the day that defendant's blood was tested what the [contamination] situation was in the laboratory? No ([Patrou 12/3/07, p. 20, ln. 1](#))
2. Audited Navy labs but not for forensic alcohol ([Patrou 12/3/07 p. 123, ln. 13](#))

Headspace Gas Chromatography

1. "Blanks are absolutely essential in the world of volatile organic testing. Their purpose is to essentially serve as a clean slate. A sample that's introduced to the analytical stream as a sample that is known to be free of volatile organisms, and that gives you a means of identifying whether or not your handling processes are compromised in that process." ([Patrou 12/3/07 p. 37, ln. 18](#))
2. Limited experience with gas chromatograph but agrees it's a very robust and widely used instrument ([Arizona v. Marrama 6/23/09 p. 75, ln. 15-25](#))
3. Instrument doesn't have the ability to take a sample and say what type of alcohol it is...it's stupid ([Arizona v. Marrama 6/23/09 p. 78-79](#)).

Contamination

1. "Blanks are absolutely essential in the world of volatile organic testing. Their purpose is to essentially serve as a clean slate. A sample that's introduced to the analytical stream as a sample that is known to be free of volatile organisms, and that gives you a means of identifying whether or not your handling processes are compromised in that process." ([Patrou 12/3/07 p. 37, ln. 18](#))
2. "Best practice laboratories will actually run an instrument blank between every single analytical sample." ([Patrou 12/3/07 p. 38, ln. 17](#))

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3. “In addition to an instrument blank there's what is called a method blank. That probably is the single most important blank sample, because that's a sample that is prepared and processed in exactly the same time and space as my -- as my unknown samples. So that if I am doing something to the samples that might cross contaminate them, that's my best chance to find that out is from that method blank sample.” ([Patrou 12/3/07 p. 28, ln. 2](#))
4. “The routine analysis of air blanks in volatile organism laboratories is a best practice strongly recommended for laboratories so you understand what is in your ambient air.” ([Patrou 12/3/07 p. 39, ln. 19-22](#))
5. Best practice laboratories they run an instrument blank between each unknown sample. ([Patrou 12/3/07, p. 41, ln. 24](#))
6. Concerns with contamination not specific to alcohol, but all volatile organisms ([Patrou 12/3/07 p. 126, ln. 3-5](#))
7. Has seen contamination resulting in a .133 alcohol concentration or higher just from contamination ([Patrou 12/3/07 p. 128, ln. 23-24](#))
8. Agrees that if blood only ever opened under pressurized hood that it limits the possibility of environmental contaminant from other parts of the lab ([Patrou 12/3/07 p. 131, ln. 3](#))
9. Both samples must be contaminated for the two samples to agree with each other ([Patrou 12/3/07 p. 133, ln. 5](#))

Quality Assurance/Quality Control/Accreditation

1. “Every time you find a problem and you find a way to fix that problem it needs to be documented so it doesn't reoccur throughout the laboratory.” ([Patrou 12/3/07, p. 102, ln. 3-5](#))
2. “Here is the deal with calibration solutions. You have got to be vested in insuring the quality of those solutions, because that's foundational for everything that you are doing subsequently for quantitation purposes. And if you are allowing extraneous material to get into there, you don't know what else has

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gotten in. You don't know what else has gotten out. It's a hard job to maintain these materials and have them be good for their entire shelf life.” ([Patrou 12/3/07, p. 78, ln. 14](#))

3. How a laboratory responds when it identifies a problem is a very important component of a quality assurance program. ([Patrou 12/3/07 p. 112, ln. 14-17](#))--discussing ASCLD accreditation.
4. ASCLD accreditation does not mean results are reliable. ([Patrou 12/3/07, p. 116, ln. 15-25](#))
5. Agrees ASCLD standards require labs to have comprehensive quality management systems in place to ensure the accuracy of test results. ([Arizona v. Marrama 6/23/09 p. 72, ln. 23](#))
6. Critical of ASCLD. Believes that compared to other accreditation programs, the ASCLD accreditation program is relatively weak technically. ([Arizona v. Marrama 6/23/09 p. 73, ln. 19-22](#))
7. ISO standard is a step up from ASCLD. ([Arizona v. Marrama 6/23/09 p. 74, ln. 15-20](#))

All But Dissertation

1. Replicate testing--split samples should be used in blood alcohol testing. [FL v. Atkins,Tr 206 L3-22](#)
2. Alcohol reference solution rule. [FL v. Atkins,Tr 209-211](#)
3. Post-distribution analysis. [FL v. Atkins,Tr 211 L16-23](#)
4. Acetone testing procedures flawed b/c they don't attempt to distinguish b/t acetone and ethanol. [FL v. Atkins,Tr 214-215](#)
5. Not forensic toxicologist; no involvement in any forensic tox professional association; never ran forensic tox program for state or local gov. [FL v. Atkins,Tr 220](#)
6. Never testified for prosecution about breath testing or blood testing program; only testifies for the defense. [FL v. Atkins,Tr 221](#)
7. No practical experience in breath testing results. [FL v. Atkins,Tr 229](#)
8. Functionality testing discussion. [FL v. Atkins,T 232-239](#)

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9. Bought, used and reviewed GC. [FL v. Atkins,Tr 240](#)

10. Never operated 8000 breath test instruments. [FL v. Atkins,Tr: 241](#)