

FOR PUBLICATION

**UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT**

KRISTIN ROSSUM,
Petitioner-Appellant,

v.

DEBORAH PATRICK, Warden, &
EDMUND G. BROWN JR., Attorney
General of the State of California,
*Respondents-Appellees.**

No. 09-55666

D.C. No.
3:07-cv-1590-JLS-
JMA

OPINION

Appeal from the United States District Court
for the Southern District of California
Janis L. Sammartino, District Judge, Presiding

Argued and Submitted
April 6, 2010—Pasadena, California

Filed September 23, 2010

Before: Dorothy W. Nelson and Stephen Reinhardt,
Circuit Judges, and Nancy Gertner, District Judge.**

Opinion by Judge Gertner

*Although appellant's habeas petition lists California Attorney General Edmund G. Brown Jr. as a respondent, the only proper responding party is the warden of the prison where appellant is incarcerated. Rules Governing Section 2254 Cases, Rule 2(a); *Stanley v. Cal. Supreme Court*, 21 F.3d 359, 360 (9th Cir. 1994). As a result, the Attorney General should be dismissed as a named respondent on remand. In this opinion, we will use the singular term "appellee" instead of the plural term "appellees" to refer to the respondent.

**The Honorable Nancy Gertner, United States District Judge for the District of Massachusetts, sitting by designation.

COUNSEL

William J. Genego, Nasatir, Hirsch, Podberesky & Genego,
Santa Monica, California, for the petitioner-appellant.

Edmund G. Brown Jr., Attorney General, Dane R. Gillette, Chief Assistant Attorney General, Gary W. Schons, Senior Assistant Attorney General, Kevin Vienna, Supervising Deputy Attorney General, Kyle Niki Shaffer, Deputy Attorney General, San Diego, California, for the respondent-appellee.

OPINION

GERTNER, District Judge:

State prisoner Kristin Rossum appeals the district court's denial of her petition for a writ of habeas corpus. We reverse and remand for the district court to hold an evidentiary hearing on Rossum's claim that she was deprived of her Sixth Amendment right to the effective assistance of counsel.

Rossum was convicted of murdering her husband, Gregory de Villers. The prosecution's theory of the case was that Rossum poisoned de Villers using fentanyl, a powerful synthetic opiate. Rossum contends that her counsel rendered ineffective assistance by failing to have de Villers's autopsy samples tested for fentanyl metabolites, a test that would have resolved whether de Villers had in fact ingested fentanyl or whether fentanyl found in the samples was a product of laboratory contamination subsequent to his death. Rather than investigating, Rossum's counsel simply conceded that the cause of death was fentanyl.

The prosecution's case was purely circumstantial, hinging in large measure on toxicological and medical evidence which was equivocal. The fentanyl levels in de Villers's autopsy samples were extraordinarily, even unnaturally, high. While these elevated concentration levels suggested that death was immediate, they were at odds with medical evidence which indicated that de Villers lingered in a state of unconsciousness for several hours before he died.

The potential for contamination of the samples was not remote. Rossum and her love interest both worked at the San Diego County Office of the Medical Examiner (OME), which ordinarily would have performed the toxicological analysis of de Villers's samples. The OME was sufficiently concerned about the possibility of a conflict of interest that it decided to send the samples to another lab for testing. Nevertheless, the samples were stored in an unsecured refrigerator at the OME for thirty-six hours.

In addition to opportunity, there was motive to contaminate in the swirl of personal relationships among the OME's employees. But even if those motives are speculative, as the district court concluded, the samples could have been tested for contamination by analyzing them for the presence of metabolites of fentanyl, which are chemical compounds produced when the liver processes the drug. If no metabolites were found, it would have proven that fentanyl had not been in de Villers's body prior to his autopsy and thus could not have caused his death.

Without first having such tests conducted, Rossum's attorneys accepted the prosecution's theory that de Villers died from an overdose of fentanyl but claimed that he committed suicide. The medical and toxicological evidence, however, suggested that if fentanyl caused de Villers's death, it must have been administered to him multiple times. Since de Villers was too comatose to self-administer fentanyl in the hours immediately preceding his death, the defense's suicide-by-fentanyl theory was highly implausible. And the choice of this approach is particularly significant since there was an alternative cause of death consistent with the evidence and potentially consistent with suicide.

In light of the anomalous medical and toxicological evidence, the ready availability of an alternative cause of death, the lapse in the chain of custody of de Villers's autopsy specimens, and the failure of Rossum's attorneys to have a test

conducted that could have conclusively contradicted the prosecution's theory of the case, she has made a strong showing that her lawyers' performance was deficient.

Given the limited record before us, however, we cannot determine whether Rossum is entitled to habeas relief. We thus remand the case for the district court to hold an evidentiary hearing, particularly, but not exclusively, with respect to prejudice.

BACKGROUND

*I. Factual Background*¹

When Rossum met de Villers in early 1995, she was abusing methamphetamine. He helped her to stop using the drug, and they married in June 1999.

While in college in 1997, Rossum began working at the OME. After graduating summa cum laude with a degree in chemistry, Rossum was hired by the OME as a toxicologist in March 2000. (A toxicologist analyzes bodily fluids to determine whether drugs are present.)

Around the time that the OME hired Rossum, it appointed Michael Robertson to the position of Forensic Laboratory Manager. Robertson, an Australian citizen, had not previously worked for the OME. He replaced Russ Lowe, a longtime OME employee who had been serving as acting laboratory manager.

Rossum and Robertson—who, like Rossum, was married at the time—began having a sexual relationship in June 2000.

¹The facts here are drawn primarily from the California Court of Appeal's decision affirming Rossum's conviction. *People v. Rossum*, No. D041343, 2005 WL 1385312, at *1-*3 (Cal. Ct. App. June 13, 2005), supplemented by facts deriving from the record on file with this Court.

Several OME employees suspected the affair. At trial, Lowe and OME toxicologist Catherine Hamm testified that some of Rossum's coworkers resented her for it, believing that she might receive special treatment from Robertson, who was her supervisor.

Rossum resumed using methamphetamine in October 2000. On Thursday, November 2, 2000, de Villers confronted her about his suspicions—that she was using drugs again and worse, that she was having an affair with Robertson. He demanded that she resign from the OME and threatened that if she did not, he would reveal her drug use and her affair to her employer.

Rossum testified that when de Villers awoke on the morning of Monday, November 6, he seemed “out of it”; his speech was slurred. She called his workplace at 7:42 a.m. and left a voicemail message stating that he was ill and probably would not come to work that day.

Rossum went to work at 8:00 that morning; coworkers saw her crying in Robertson's office an hour later. The manager of her apartment complex observed her running into her apartment at 12:10 p.m. At 12:41 p.m., Rossum purchased several items at a grocery store. According to Rossum, she returned to her apartment and ate lunch with de Villers. She testified that when she asked him why he had been so “out of it” that morning, he told her that he had taken some of her oxycodone and clonazepam, which she had obtained years earlier when she was trying to end her methamphetamine addiction. She testified that de Villers went back to bed after lunch.

Rossum returned to work, but left again at 2:30 p.m. The manager of her apartment saw her car in the parking lot of the complex at 2:45 p.m. She met with Robertson later that afternoon and stayed with him until about 5:00 p.m., when she returned to her apartment. She left her apartment again at about 6:30 p.m. to run some errands and returned home at

about 8:00 p.m. Rossum testified that de Villers still appeared to be sleeping at that time. She kissed him on the forehead and then took a bath and shower. After the bath and shower, she found de Villers to be cold to the touch and not breathing.

Rossum called 911 at 9:22 p.m. The operator told her to move de Villers's body to the floor and attempt CPR. When paramedics arrived, they found his body on the floor with red rose petals and a stem strewn around him.² Rossum initially told the paramedics that he had not taken any drugs as far as she knew, but later told them that he may have taken oxycodone.

De Villers was pronounced dead at the hospital at 10:19 p.m. While at the hospital, Rossum told a nurse that de Villers may have overdosed on oxycodone.

Dr. Brian Blackbourne, the San Diego County Medical Examiner, performed de Villers's autopsy. He determined that de Villers had been dead for at least an hour before the paramedics arrived. He testified that de Villers had developed early bronchopneumonia, a condition that results when secretions that are normally removed by the breathing process accumulate in the lungs. It occurs when a person is "unconscious or not breathing very deeply." Dr. Blackbourne also noted that de Villers had approximately 550 milliliters of urine in his bladder, which was a significant amount and would have been "very uncomfortable" to a conscious person.³

²The parties disputed the source of the rose at trial. The prosecution alleged that Rossum bought the rose during her trip to the grocery store on Monday. Although Rossum admitted to purchasing a rose from the grocery store, she claimed that it had yellow petals and that she gave the rose to Robertson when they met later Monday afternoon. The defense suggested that the rose petals found around de Villers's body came from the sole remaining rose of a bouquet that de Villers had given to Rossum for her birthday.

³Most individuals would feel a need to empty their bladders when 150 milliliters of urine had accumulated. At 400 milliliters, the feeling would be urgent.

The combination of the bronchopneumonia in de Villers's lungs and the amount of urine in his bladder led Dr. Blackburne to conclude that de Villers had been immobile and not breathing properly for approximately six to twelve hours prior to his death.

Lloyd Amborn, the operations administrator of the OME, decided that an outside laboratory should perform the toxicological tests on the autopsy specimens taken from de Villers's body to avoid any potential conflict of interest. This was the first time Amborn had used an outside agency to conduct such tests.

After the autopsy, de Villers's specimens were supposed to be taken to the sheriff's office, which would then transfer them to the outside toxicology lab for testing. The specimens were placed in a cardboard box, with each individual container marked as a sample taken from de Villers's body. Because the individual at the sheriff's office who was supposed to receive the samples was not immediately available to take possession of them, the box was taken to the OME. The specimens remained in a refrigerator at the OME for approximately thirty-six hours and were then transported to the sheriff's crime lab on the morning of Thursday, November 9, 2000.

While the autopsy specimens were at the OME, anyone with a key to the building had access to them. The containers were not sealed; their tops could be pulled off and then replaced. Indeed, on Wednesday, November 8, 2000, Robertson commented to one of the toxicologists at the OME that he had looked at a sample of de Villers's stomach contents.

That same day, November 8, Russ Lowe—the veteran OME employee who served as acting laboratory manager before Robertson was appointed—called the police to report Rossum and Robertson's affair. In its closing argument, the

prosecution characterized Lowe's call as a turning point that focused the police's attention on the possibility of foul play.

Toxicology tests showed that de Villers's autopsy specimens contained extremely high concentrations of fentanyl, as well as a smaller amount of clonazepam and a trace level of oxycodone. At Rossum's trial, Dr. Blackbourne testified that the concentration of clonazepam found in de Villers's blood was at the high end of what would be considered a therapeutic level, but that it was "not an overdose level" and "not fatal." He conceded, however, that sometimes postmortem testing reveals a lower concentration of a drug than had previously been present in the body. As a result of such postmortem redistribution, what was a fatal concentration of a particular drug at the time of a person's death could be measured as being within the therapeutic range at the time of autopsy. The jury also heard testimony that oxycodone, which is an opiate, and clonazepam, a benzodiazepine, can have a "synergistic" effect on each other, meaning that each drug is made more powerful when taken with the other.

The discovery of fentanyl in de Villers's samples was significant and unexpected. Fentanyl is a synthetic opiate that is roughly 100 to 150 times more powerful than morphine. At the time of de Villers's death, the OME did not ordinarily test samples for fentanyl since it is not a regularly abused drug. However, Pacific Toxicology, the outside laboratory to which the samples were first sent, tested for fentanyl as part of its standard "drugs of abuse" screen. After receiving the test results from Pacific Toxicology, Dr. Blackbourne concluded that de Villers died of acute fentanyl intoxication.

Prior to Rossum's trial, de Villers's samples were also sent to two other laboratories for testing: the Alberta Office of the Chief Medical Examiner in Canada and Associated Pathologist Laboratories in Las Vegas, Nevada. As the following chart demonstrates, the concentration levels of fentanyl measured by the different laboratories varied considerably:

	Alberta Office of the Chief Medical Examiner	Pacific Toxicology Laboratories	Associated Pathologist Laboratories
Stomach Contents	201 ng/mL, 210 ng/mL	286.5 ng/mL, 329.7 ng/mL	128 ng/mL
Urine	—	189 ng/mL	236 ng/mL
Blood	—	57.3 ng/mL	32.8 ng/mL
Peripheral Blood	—	11.2 ng/mL	—
Antemortem Blood	—	35.8 ng/mL	—
Right Proximal Forearm Ulnar Aspect Tissue	—	21.3 g	—
<i>Key: “g” is grams; “ng” is nanograms; “mL” is milliliters; “—” indicates that there are no results in the record</i>			

At Rossum’s trial, the prosecution called Dr. Theodore Stanley as an expert witness on the properties and characteristics of fentanyl. Dr. Stanley testified that fentanyl is a potent and generally fast-acting pain reliever. The drug has one serious side effect; it can cause a person to stop breathing. Dr. Stanley testified that fentanyl begins to affect respiration at a concentration level in the blood of 2 ng/mL. At a concentration of 4 ng/mL, about half of “opioid naive” individuals—people without significant experience taking opiates—would be breathing very slowly or not at all. At 57.3 ng/mL, the concentration found in de Villers’s blood by Pacific Toxicology, no opioid-naive individual would be conscious or breathing.⁴

Dr. Stanley testified that the speed with which fentanyl takes effect depends on the manner in which the drug is administered: the peak effect occurs about sixteen hours after

⁴No evidence was presented at trial that de Villers was inured to the effects of fentanyl through the regular abuse of opiates. (See testimony from Rossum that the only drug de Villers used was marijuana).

administration of a transdermal patch, twenty to thirty minutes after oral consumption, fifteen to twenty minutes after intramuscular injection, and five minutes after intravenous injection. He explained that fentanyl is not normally administered orally because when the drug is taken in this way, the liver destroys about 65 percent of it, leaving only about 35 percent to enter the bloodstream.

None of the three physicians who testified at Rossum's trial—Dr. Blackbourne, Dr. Stanley, or the defense expert on fentanyl, Dr. Mark Wallace—could provide a definitive opinion as to how the fentanyl was introduced into de Villers's body. Dr. Stanley, however, testified that the differing concentration levels in de Villers's system, along with the evidence indicating that de Villers had been unconscious and breathing shallowly for hours before his death, suggested that fentanyl likely had been administered to de Villers on multiple occasions.

After de Villers's death, the OME audited its impounded drugs and drug standards.⁵ It discovered that fifteen fentanyl patches and ten milligrams of fentanyl standard were missing. Rossum had logged in the fentanyl standard and had worked on each of the three cases in which the missing fentanyl patches had been impounded. The OME also determined that quantities of methamphetamine, clonazepam, and oxycontin (a time-released form of oxycodone) were missing.

II. Rossum's Trial and Post-Trial Proceedings

Rossum was prosecuted for the murder of de Villers with the special circumstance that the murder was committed by means of poison. Cal. Penal Code §§ 187, 190.2(a)(19). Her jury trial began in October 2002. At trial, the prosecution

⁵The OME impounds drugs discovered at the scene of an individual's death and maintains an inventory of "drug standards"—quantities of particular drugs used as reference material during testing procedures.

argued that Rossum poisoned de Villers with fentanyl, possibly after she gave him clonazepam but the clonazepam failed to kill him. The defense conceded that fentanyl caused de Villers's death but contended that de Villers committed suicide because he was despondent over his marital problems.

The jury found Rossum guilty in November 2002, and in December 2002 the court sentenced her to prison for life without the possibility of parole.

On June 13, 2005, the California Court of Appeal affirmed Rossum's conviction on direct review and denied her concurrently filed petition for a writ of habeas corpus. The California Supreme Court summarily denied her petition for review of her direct appeal.

On December 15, 2006, Rossum filed a petition for a writ of habeas corpus in the California Supreme Court.⁶ The petition asserted for the first time the claim at issue in this appeal—that Rossum's trial counsel rendered ineffective assistance by not having de Villers's autopsy samples tested for fentanyl metabolites despite the fact that such tests might have ruled out fentanyl as the cause of de Villers's death and thus disproven the prosecution's theory of the case. Instead, as the petition stated, counsel promptly conceded the prosecution's theory—that fentanyl was the cause of de Villers's death. Rossum supported her petition with a declaration from Dr. Steven H. Richeimer, a medical professor and practitioner with substantial experience in anesthesiology and requested

⁶As we have previously explained:

In California, the state supreme court, intermediate courts of appeal and superior courts all have original habeas corpus jurisdiction. . . . If the court of appeal denies [habeas] relief, the petitioner may seek review in the California Supreme Court by way of a petition for review, or may instead file an original habeas petition in the supreme court.

Redd v. McGrath, 343 F.3d 1077, 1079 n.2 (9th Cir. 2003).

an evidentiary hearing. Dr. Richeimer has overseen the administration of fentanyl on thousands of occasions and is well versed in the drug's characteristics and properties. His declaration explains that fentanyl "is a very rapidly acting drug." As a result, "[i]f very high doses [were] rapidly administered" to de Villers, then he likely would have died "within minutes," "not in a manner consistent with the 6-12 hours of impaired breathing and consciousness described by Dr. Blackburne." Alternatively, if de Villers absorbed fentanyl "gradually, perhaps through the stomach," then he likely would not have survived "long enough for [his] blood levels to reach the extremely high levels" measured by the toxicology labs.

Dr. Richeimer's declaration states that contamination of the samples drawn from de Villers's body could explain the seeming "inconsistency between the rapid action of fentanyl, the extraordinarily high concentration levels, and the lengthy period of impaired breathing and reduced consciousness" that de Villers suffered. Indeed, Dr. Richeimer opines:

[C]ontamination of the specimens would explain the high blood levels better than ingestion or other administration of fentanyl to the decedent. . . . [I]n attempting to determine if the cause of death was from fentanyl, it would be necessary to rule out the possibility that the samples were contaminated.

Richeimer Decl. at 3.

According to Dr. Richeimer, a toxicology lab could conclusively determine whether fentanyl was present in de Villers's body at the time of his death by testing his samples for metabolites of fentanyl. If de Villers's specimens contain metabolites of fentanyl, then fentanyl must have been present in his body at the time the specimens were taken. If no metabolites are present, then the specimens must have been contaminated after his death.

The California Supreme Court summarily denied Rossum's habeas petition in a one-sentence order on August 8, 2007. Two days later, Rossum filed a federal habeas petition under 28 U.S.C. § 2254. The magistrate judge to whom Rossum's petition was assigned issued a report and recommendation advising that the petition be denied. The district court adopted this recommendation and denied Rossum's petition on April 8, 2009. It concluded that her trial counsel's performance was not deficient, and that even if it was, she did not suffer any prejudice. It also denied Rossum's motion, made under Rule 6 of the Rules Governing Section 2254 Cases, for leave to test de Villers's autopsy specimens for metabolites of fentanyl. Rossum requested a certificate of appealability, which the district court granted on April 24, 2009.

DISCUSSION

I. Governing Legal Standards

We review a district court's denial of a petition for a writ of habeas corpus raising claims of ineffective assistance of counsel de novo. *Reynoso v. Giurbino*, 462 F.3d 1099, 1108-09 (9th Cir. 2006). Any factual findings made by the district court are reviewed for clear error. *Id.*

Since Rossum filed her federal habeas petition after April 24, 1996, the effective date of the Antiterrorism and Effective Death Penalty Act of 1996 ("AEDPA"), the district court could not grant her habeas relief unless the California Supreme Court's decision denying her state habeas petition "was contrary to, or involved an unreasonable application of, clearly established Federal law, as determined by the Supreme Court of the United States." 28 U.S.C. § 2254(d)(1); *see also Reynoso*, 462 F.3d at 1109. "When, as in the instant case, 'no reasoned state court decision denying a habeas petition exists,' this court must assume that the state court has decided all the issues and 'perform an independent review of the record to ascertain whether the state court decision was objec-

tively unreasonable.’ ” *Reynoso*, 462 F.3d at 1109 (quoting *Pham v. Terhune*, 400 F.3d 740, 742 (9th Cir. 2005) (per curiam)); *see also Williams v. Taylor*, 529 U.S. 362, 409 (2000) (“[A] federal habeas court making the ‘unreasonable application’ inquiry [under section 2254(d)(1)] should ask whether the state court’s application of clearly established federal law was objectively unreasonable.”).

The “clearly established federal law” that applies in this case is the framework articulated for analyzing claims of ineffective assistance of counsel in *Strickland v. Washington*, 466 U.S. 668 (1984). *See Williams*, 529 U.S. at 390 (applying *Strickland* as the “clearly established federal law” that governed petitioner’s ineffective-assistance claim). Under *Strickland*, Rossum must prove that (1) her counsel’s performance was deficient, and (2) she suffered prejudice as a result. 466 U.S. at 687. To be deficient, an attorney’s conduct must fall below an “objective standard of reasonableness” established by “prevailing professional norms.” *Id.* at 687-88. To demonstrate prejudice, Rossum does not need to show that her counsel’s deficient performance more likely than not affected the outcome of the case. Instead, she must demonstrate only a “reasonable probability that, but for counsel’s unprofessional errors, the result of the proceeding would have been different.” *Id.* at 694. The Supreme Court has defined a “reasonable probability” as “a probability sufficient to undermine confidence in the outcome.” *Id.*

II. The Merits of Rossum’s Strickland Claim

A. Deficient Performance

A competent attorney would not have conceded that fentanyl caused de Villers’s death without first having his autopsy specimens tested for metabolites of fentanyl; a determination to the contrary, particularly without an evidentiary hearing, would constitute an unreasonable application of Supreme

Court law, unless counsel could show some strategic reason for his failure to conduct an elementary investigation.

[1] *Strickland* recognized that an attorney’s duty to provide reasonably effective assistance includes the “duty to make reasonable investigations or to make a reasonable decision that makes particular investigations unnecessary.” *Strickland*, 466 U.S. at 691; *see also ABA Standards for Criminal Justice: Prosecution Function and Defense Function* 4-4.1(a) (3d ed. 1993) (“Defense counsel should conduct a prompt investigation of the circumstances of the case and explore all avenues leading to facts relevant to the merits of the case . . .”). In Rossum’s case, this investigatory duty extended to the cause of de Villers’s death. Rossum’s attorneys were presented with “tantalizing indications” that de Villers’s autopsy specimens might have been contaminated: the medical and toxicological evidence raised serious questions as to whether fentanyl could have caused de Villers’s death, an alternative cause of death was readily apparent, and there was a lapse in the chain of custody of de Villers’s autopsy specimens. *Stankewitz v. Woodford*, 365 F.3d 706, 719-20 (9th Cir. 2004).

[2] The medical and toxicological evidence would have prompted a competent attorney to question Dr. Blackburne’s conclusion that de Villers died from an overdose of fentanyl. The fentanyl concentration levels measured by the three toxicology labs were widely disparate, suggesting, at the very least, that something might have been amiss with de Villers’s autopsy specimens. The measurements were also extraordinarily high. Dr. Stanley, the prosecution’s fentanyl expert, testified that at a concentration of 4 nanograms of fentanyl per milliliter of blood, about fifty percent of people would be breathing very slowly or not at all. The concentration of fentanyl that Pacific Toxicology measured in de Villers’s blood was about fourteen times this level. Dr. Stanley also testified that in his decades of experience with anesthesiology, he had never seen fentanyl concentrations as high as those measured in de Villers’s stomach. Given fentanyl’s potency, a compe-

tent attorney would have wondered how the concentration of fentanyl in de Villers's blood, urine, and stomach contents could have reached such an extraordinary level before the drug killed him.⁷

[3] Competent counsel would also have questioned how de Villers could have lingered for six to twelve hours before finally succumbing to fentanyl. As Dr. Richeimer's declaration indicates, if Rossum administered a single, large dose of fentanyl to de Villers, then he almost certainly would have died within a matter of minutes, not hours. If, instead, de Villers absorbed fentanyl gradually, his breathing would have stopped, and thus he would have perished long before the concentration of fentanyl in his blood reached the stratospheric levels measured by the toxicology labs.⁸ The inconsistency between fentanyl's potency and its relatively rapid onset, on the one hand, and de Villers's prolonged period of unconsciousness and his extraordinarily high toxicology results, on the other, would have prompted a competent attorney to investigate the possibility that de Villers's death was caused by another substance.

[4] Rossum's lawyers would not have had to look far for an alternative explanation of de Villers's death. In addition to fentanyl, toxicologists also found clonazepam and oxycodone

⁷There is some evidence suggesting that fentanyl has a unique property: unlike most drugs, concentrations of fentanyl may increase after death. Dr. Stanley, however, testified that the concentration of fentanyl measured after death would likely be no more than about twenty percent higher than the concentration before death. Thus, even if one takes into account the possibility that the concentration of fentanyl in de Villers's bodily fluids rose slightly after his death, the levels measured by the toxicology labs were still exceptionally high.

⁸Dr. Stanley did testify that de Villers's blood levels potentially could have been obtained through the application of multiple transdermal patches. But his opinion on this issue was very tentative. He admitted that he was "not sure" that such levels could be achieved because he had never placed that many patches on a patient.

in de Villers's autopsy specimens. True, the concentration of clonazepam was in the high therapeutic range, and only a trace amount of oxycodone was found. But Dr. Stanley testified that clonazepam and oxycodone are synergistic, each multiplying the effect of the other when they are taken in combination. Thus, a concentration of clonazepam near the top of the therapeutic range could potentially have turned lethal when its effect was compounded by the presence of oxycodone. In addition, Dr. Stanley conceded that the concentration of clonazepam in de Villers's body might have fallen after his death due to postmortem redistribution. De Villers thus might have had a fatal concentration of clonazepam in his body at the time of his death, even though the postmortem testing of his autopsy specimens produced measurements within the therapeutic range.

[5] The lapse in the chain of custody of de Villers's autopsy samples would also have led a competent attorney to investigate the possibility of contamination. Although concerns about a potential conflict of interest prompted the OME to send de Villers's specimens to an outside laboratory for testing, it nevertheless stored the samples at its lab for a period of thirty-six hours before they were transferred to the sheriff's office. During this time, anyone with a key to the OME had access to the specimens. Indeed, Robertson claimed to have opened at least one of the samples while they were housed at the OME. Since the OME stores fentanyl at its lab, contamination—whether intentional or unintentional—could have occurred.

While the district court concluded that the possibility of intentional contamination was speculative, the record indicates otherwise. Although the potential motivations for such an act are manifold, two are particularly salient. First, the samples could have been contaminated by a coworker upset by the preferential treatment Rossum seemed to receive from Robertson. Second, an OME employee seeking to dethrone Robertson from his position as laboratory manager could have

contaminated the specimens to cast suspicion on both him and Rossum.⁹

[6] The appellee rejoins that if one of Rossum's coworkers had decided to frame her or Robertson, he would not have used fentanyl to do so because he would have known that toxicology labs rarely test for fentanyl. The record belies this contention. As an initial matter, the appellee's argument does not account for the possibility of unintentional contamination. It also fails to recognize that OME employees could well have known that de Villers's specimens would be sent to an outside lab, and the first lab selected to analyze de Villers's samples, Pacific Toxicology, did test for fentanyl as part of its standard "drugs of abuse" screen. Finally, the argument ignores the manner in which toxicology testing is ordinarily done. Dr. Blackburne testified that if a toxicology lab's initial testing fails to disclose a cause of death, further tests are often conducted to determine if less common substances are present in the decedent's body. Even if fentanyl were not initially discovered by toxicologists, then, it might have been found in later tests.

The appellee also contends that Rossum has failed to show that her coworkers held sufficient animosity toward her to motivate them to take the drastic step of framing her for murder. Thus, the appellee argues, Rossum's attorneys could reasonably have decided not to waste their time and resources pursuing a theory of intentional contamination. Again, this argument fails to consider the possibility of unintentional contamination. More importantly, however, it ignores the fact that a contamination defense was the best—and perhaps the

⁹Robertson appears to have had a special interest and expertise in fentanyl. Russ Lowe testified that he discovered approximately thirty-seven articles on fentanyl while cleaning out Robertson's office after his departure from the OME. If Robertson's interest in fentanyl was widely known, then contaminating de Villers's samples with fentanyl might have seemed like an effective way of implicating Robertson in de Villers's death.

only viable—defense available to Rossum. *Cf. Gomez v. Beto*, 462 F.2d 596, 597 (5th Cir. 1972) (“When a defense counsel fails to investigate his client’s only possible defense, although requested to do so by him; and fails to subpoena witnesses in support of the defense, it can hardly be said that the defendant has had the effective assistance of counsel.”). A competent attorney would have been extremely reluctant to concede that fentanyl caused de Villers’s death because the concession would essentially doom the defense’s theory that de Villers committed suicide.

[7] While there were significant holes in the prosecution’s theory that Rossum murdered de Villers with fentanyl, the defense’s suicide-by-fentanyl theory was even more implausible. The medical and toxicological evidence suggested that de Villers could only have died from an overdose of fentanyl if he was administered the drug on multiple occasions throughout the day. If de Villers self-administered a large, single dose of fentanyl, then he would have died too rapidly for the bronchopneumonia to develop in his lungs and for the large quantity of urine to collect in his bladder. But de Villers could not have voluntarily taken multiple doses of fentanyl over the course of the day because in the last hours of his life, he was too comatose even to breathe properly, much less self-administer fentanyl.

A competent attorney would have recognized the defects in a defense based on the theory that de Villers committed suicide by taking fentanyl and thus would have thoroughly investigated the possibility of contamination before conceding that fentanyl caused de Villers’s death. Dr. Richeimer’s declaration indicates that a toxicology lab could have definitively determined whether de Villers’s samples were contaminated by testing them for the presence of metabolites of fentanyl.¹⁰

¹⁰Would a competent attorney have realized that de Villers’s samples could be tested for contamination by analyzing them for the presence of fentanyl metabolites? The appellee argues not. At oral argument, the

Although the district court and the appellee note that the absence of fentanyl metabolites would not have exonerated Rossum because she could have killed de Villers with another drug, it seems highly unlikely that a jury would have convicted Rossum if the defense were able to conclusively contradict the prosecution's theory that Rossum murdered de Villers with fentanyl and show that de Villers's autopsy specimens were contaminated, either intentionally or through inadvertence. If, on the other hand, fentanyl metabolites were found, the defense would have suffered no harm. Even if the prosecution were somehow able to discover the test results, *but see* Cal. Penal Code § 1054.3(a) (West 2002) (requiring the defense to disclose the results of scientific tests to the prosecution only if the defense intends to introduce the results

appellee directed our attention to the cross-examination of toxicologist Michael Henson. Rossum's attorney asked Henson, "Do you have any way of knowing or testing to determine if any [of de Villers's] samples . . . has been tampered with or spiked by anybody?" Henson answered, "No." ER 305. If a trained toxicologist did not know that contamination could be detected through a test for metabolites, the appellee asks, how could an attorney, untrained in forensic science, be expected to have such knowledge?

We could dismiss this argument, which the appellee raised for the first time at oral argument, as waived. *See Butler v. Curry*, 528 F.3d 624, 642 (9th Cir. 2008). Nevertheless, we reject it on its merits. We refuse to accord definitive weight to an answer given by a single prosecution witness during cross-examination. In any case, defense attorneys are obligated to pursue lines of investigation that hold out the promise of proving their clients' innocence prior to deciding on a trial strategy. *See Hart v. Gomez*, 174 F.3d 1067, 1070 (9th Cir. 1999). According to Dr. Richeimer, many toxicology labs regularly test samples for metabolites. Thus, at least on the record before us, it seems likely that if Rossum's attorneys had conducted an adequate pretrial investigation, they would have discovered that de Villers's specimens could be tested for contamination by analyzing them for the presence of fentanyl metabolites. Indeed, if that were the case, there would have been no need for them to ask the question on which the appellee's argument is founded. They would have known that a test for contamination is available—the test for metabolites discussed in Dr. Richeimer's declaration.

as evidence at trial), the defense would have been left to pursue the very theory that Rossum's attorneys argued at trial—that de Villers committed suicide by taking fentanyl.

This leaves only the appellee's argument that Rossum's attorneys could reasonably have decided not to pursue a contamination theory so as not to contradict testimony that Rossum provided at trial. However, this could not have been the basis for their decision not to pursue a contamination theory, as they had an obligation to investigate such a theory *before* the trial, when there was no testimony to contradict. In any event, this argument misconceives the relevance of a single question and answer made during Rossum's cross-examination:

Q. So it is your testimony, then, that Greg de Villers voluntarily took fentanyl, clonazepam, and oxycodone, correct?

A. As far as his death, yes.

Trial Tr. vol. 21, 2569.

Rossum's answer amounted to no more than a restatement of her defense: de Villers committed suicide by voluntarily taking whatever drugs were found in his system. Rossum was not averring that she had firsthand knowledge that de Villers took fentanyl, along with other drugs. In fact, her entire defense was founded on the premise that she did not have such firsthand knowledge because de Villers, not she, administered whatever drugs caused his demise.

[8] Because the medical and toxicological evidence raised serious questions about de Villers's purported cause of death, because an alternative cause of death was readily apparent, and because there was a lapse in the chain of custody of de Villers's specimens, we conclude that a competent attorney would not have pursued a suicide-by-fentanyl theory, with all

its defects, without first having de Villers's specimens tested for the presence of fentanyl metabolites.¹¹ On this record, *Strickland*'s first prong therefore appears to be satisfied.¹²

B. Prejudice

To prevail in her ineffective assistance claim Rossum must also demonstrate that she was prejudiced by her counsel's deficient performance. We are unable to determine from the record before us whether Rossum was prejudiced by her attorneys' deficient investigation, as that conclusion must ultimately rest on whether or not de Villers's autopsy samples prove to contain fentanyl metabolites.

As noted above, the appellee argues that even if de Villers's autopsy specimens do not contain metabolites of fentanyl, such a finding would not exonerate Rossum because she could have murdered de Villers by other means. This argument ignores both the weaknesses of the prosecution's case against Rossum and the impact that evidence of contamination would likely have had on the jury.

[9] The prosecution's case was based entirely on circumstantial evidence. It primarily relied on the inferences that

¹¹Pointing to Dr. Richeimer's declaration that many toxicology labs commonly run tests for metabolites, the appellee speculates that de Villers's autopsy specimens may already have been tested for the presence of fentanyl metabolites. If metabolites of fentanyl were found by any of the toxicology labs that analyzed de Villers's specimens, the appellee bore the burden of presenting this information to the district court. It would be highly improper for us to assume, based merely on the appellee's unsupported speculation, that de Villers's specimens were tested for the presence of fentanyl metabolites and that such tests were unfavorable to Rossum.

¹²We do not prohibit the state, however, from calling defense counsel to testify, at the evidentiary hearing, should counsel choose to assert that his failure to conduct a reasonable investigation regarding metabolites was the result of some thus far undisclosed reason, strategic or other.

could be drawn from (1) the medical and toxicological evidence; (2) the lack of other plausible suspects; (3) Rossum's apparent motive to kill de Villers to stop him from disclosing her affair and drug use; and (4) her access to the drugs found in his body.

[10] If the defense had tested de Villers's autopsy specimens and found no fentanyl metabolites, it could have definitively refuted the prosecution's theory of the case—that Rossum murdered de Villers with an overdose of fentanyl. And, given the evidence, the prosecution would have had an extremely difficult time convincing the jury that Rossum instead committed the murder with different drugs. At trial, the prosecution downplayed the significance of the oxycodone and clonazepam found in de Villers's specimens, noting that the concentrations of these drugs were not at lethal levels. Furthermore, if jurors learned that de Villers's autopsy samples had been contaminated, either intentionally or by accident, they could well have viewed all of the prosecution's evidence more skeptically.

[11] Thus, whether or not Rossum was prejudiced by her counsel's deficient performance is a question that ultimately turns on whether fentanyl metabolites are present in de Villers's autopsy samples, a question that cannot be answered based upon the current record.

III. Remand for Further Proceedings

[12] We thus remand for the district court to hold an evidentiary hearing. Rossum is not barred from obtaining an evidentiary hearing by 28 U.S.C. § 2254(e)(2) because she did not “fail[] to develop the factual basis of [her] claim” before the California state courts. Although Rossum requested an evidentiary hearing before the California Supreme Court, the court summarily denied her habeas petition without ordering such a hearing. As we have previously held, a district court evidentiary hearing is not barred if a habeas petitioner made

“a reasonable attempt, in light of the information available at the time, to investigate and pursue claims in state court, [by] at a minimum seek[ing] an evidentiary hearing in state court in the manner prescribed by state law.” *West v. Ryan*, 608 F.3d 477, 484-85 (9th Cir. 2010).

A habeas petitioner not barred from receiving an evidentiary hearing by section 2254(e)(2) is entitled to such a hearing if she (1) alleges facts that, if proven, would entitle her to relief, and (2) shows that she did not receive a full and fair hearing in state court. *Alberni v. McDaniel*, 458 F.3d 860, 873 (9th Cir. 2006); *see also Insyxiengmay v. Morgan*, 403 F.3d 657, 669-70 (9th Cir. 2005). If, as Rossum alleges, de Villers’s specimens were contaminated and her attorneys failed to investigate that possibility, she would in all probability be entitled to habeas relief on her claim of ineffective assistance of counsel. And as explained above, the California Supreme Court did not afford Rossum a full and fair hearing on this contention since it summarily denied her state habeas petition. As a result, Rossum is entitled to an evidentiary hearing on her allegations of ineffective assistance of counsel and, in particular, her claim that she was prejudiced by her attorneys’ failure to conduct an investigation as to whether fentanyl was the cause of de Villers’s death before conceding the critical point to the prosecution.

[13] Under our holding in *Jones v. Wood*, 114 F. 3d 1002 (9th Cir. 1997), in conducting this evidentiary hearing the district judge is obligated to allow Rossum to test de Villers’s specimens for metabolites of fentanyl. The habeas petitioner in *Jones* was convicted of murdering his wife. *Id.* at 1004. He contended that his trial counsel performed deficiently by failing to order forensic testing that might have proved that the blood found on the clothing he was wearing on the night of the murder came from a cut on his own hand, rather than from his wife as the prosecution contended. *Id.* at 1006-07. We held that the district court abused its discretion by denying the petitioner’s request to test the blood on the clothing to deter-

mine whether it was his or his wife's. *Id.* at 1009. *Here, as in Jones*, “discovery is essential for [Rossum] to develop fully [her] ineffective assistance of counsel claim” because the testing she seeks “may establish the prejudice required to make out such a claim.” *Id.*

CONCLUSION

For the foregoing reasons, we conclude that Rossum is entitled to an evidentiary hearing on her claim that her trial counsel rendered ineffective assistance under *Strickland*. Accordingly, we **REVERSE** the district court's denial of a writ of habeas corpus and **REMAND** for further proceedings consistent with this opinion.