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IN THE SUPREME COURT OF FLORIDA
CASE NO. SC14-1178

EDDIE WAYNE DAVIS
Appellant,

DEATH WARRANT
SIGNED EXECUTION
SCHEDULED
July 10, 2014 at 6:00 p.m.

v.

STATE OF FLORIDA
Appellee.

ON APPEAL FROM THE CIRCUIT COURT
OF THE TENTH JUDICIAL CIRCUIT FOR POLK COUNTY,
STATE OF FLORIDA

SUPPLEMENTAL INITIAL BRIEF OF APPELLANT

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STANDARD OF REVIEW

Mr. Davis' appeal involves mixed issues of law and fact and are to be reviewed de novo by this Court. Stephens v. State, 748 So.2d 1028 (1999).

I. PROCEDURAL HISTORY

Mr. Davis was charged by indictment on April 7, 1994, with one count of first degree murder, one count of burglary with assault, one count of kidnapping of a child under 13, and one count of sexual battery on a child under 12. The case proceeded to jury trial on May 22, 1995 and concluded on June 1, 1995, with the jury returning verdicts of guilty on all four counts. After penalty phase proceedings held between June 6, 1995, and June 9, 1995, the jury recommended that Mr. Davis receive the death penalty. The court sentenced Mr. Davis on June 30, 1995, upholding the jury's recommendation of the death sentence for the first degree murder conviction. In its sentencing order, the trial court found four aggravators: (1) the capital felony was committed by a person under sentence of imprisonment; (2) the capital felony was committed while Davis was engaged in the commission of, or flight after committing, the crimes of either burglary and/or kidnapping and/or sexual battery; (3) the capital felony was committed for the purpose of avoiding or preventing a lawful arrest; and (4) the capital felony was especially heinous, atrocious or cruel. The court found the statutory mitigating circumstance of extreme mental or emotional disturbance to apply but rejected the statutory

mitigator of impaired capacity. The court found several nonstatutory mitigating circumstances applicable, but rejected others proposed by the defense.

On June 5, 1997, the Florida Supreme Court affirmed the judgment of guilt and sentence of death. Davis v. State, 698 So.2d 1182 (Fla. 1997). The rehearing was denied on September 11, 1997. The Florida Supreme Court issued a Mandate on October 13, 1997.

The United States Supreme Court denied Mr. Davis' petition for certiorari on February 23, 1998. Davis v. Florida, 522 U.S. 1127, 118 S.Ct. 1076, 140 L.Ed.2d 134 (1998). Mr. Davis filed his first Motion to Vacate judgment of Conviction and Sentence on May 27, 1998. An amended motion to vacate judgment and conviction and sentence was filed on June 23, 2000. On October 8 and 9, 2001, an evidentiary hearing was held. On June 11, 2002 an order denying Mr. Davis' First Amended Motion to Vacate Judgment of Convictions and Sentences was entered. An appeal followed.

The Florida Supreme Court denied the appeal in Davis v. State, 875 So.2d 359 (Fla. 2003). Rehearing was denied on November 23, 2004. Mr. Davis filed a Petition for Writ of Habeas Corpus in the district court on November 23, 2004. An Order denying the Petition for Writ of Habeas Corpus was entered on March 30, 2009. The United States Supreme Court denied Mr. Davis' petition for certiorari

on February 22, 2010. Governor Scott signed a death warrant on June 2, 2014. The appellant's Successive Motion for Postconviction Relief was filed on June 9, 2014. The lower court denied relief, without a hearing, on June 17, 2014. Mr. Davis filed his Initial Brief on June 23, 2014. The state filed their Answer on June 24, 2014 and the appellant filed a Reply Brief and an Amended Reply Brief on June 25, 2014. On June 26, 2014, the Court relinquished jurisdiction to the circuit court in order to hold an evidentiary hearing on June 30, 2014 regarding the issue of whether Mr. Davis' "alleged porphyria creates a risk that he is sure or very likely to cause serious illness and needless suffering and give rise to sufficiently imminent dangers." After an evidentiary hearing on June 30, 2014, the lower court denied Mr. Davis relief. This appeal follows.

THE LOWER COURT'S ORDER

(Reproduced in part)

The Court, for the purpose of its analysis, is assuming that the Defendant suffers from the disease porphyria and the question before the Court is whether or not the injection of the first of Florida's lethal injection protocol drugs, midazolam, will cause the Defendant needless suffering before he is rendered unconscious and eventually comatose. Dr. Zivot testified that, in his opinion, the injection of 500mg of midazolam will cause an increased accumulation of porphyrin in Mr. Davis'

tissues and the possible acute onset of porphyria symptoms including abdominal pain, tachycardia, high blood pressure, nausea, possible vomiting and resulting pain from those symptoms.

Dr. Evans testified that the injection of midazolam will cause the Defendant to go into a state of unconsciousness within the time it takes for a person to count to ten and then backwards to zero. A person injected with 500mg of midazolam will be totally unconscious within two to three minutes and in a comatose state soon thereafter. Dr. Zivot agreed that the person injected with the large dose midazolam will be unconscious within two to three minutes.

The Defendant is challenging the constitutionality of the Florida lethal injection protocol which calls for the initial injection of 500mg midazolam and thereafter the injection of vecuroniumbromide, and then potassium chloride.

ANALYSIS

In *Mohammad v. State*, 132 So.3d 176 (Fla. 2013), the Florida Supreme Court rejected the Defendant's constitutional challenge regarding the use as midazolam in the lethal injection procedure in general. The question before this Court is, therefore, whether the use of midazolam is unconstitutional "as applied" to Eddie Wayne Davis.

"In order for a punishment to constitute cruel or unusual punishment, it must involve 'torture or a lingering death' or the infliction of 'unnecessary and wanton pain'." *Lightbourne v. McCollum*, 969 So.2d 326, 349 (Fla. 2007) citing, *Gregg v. Georgia*, 428 U.S. 153, 96 S. Ct. 2909, 49 L.Ed. 2d 859 (1976).

In *Howell v. State*, 133 So.3d 511, 517 (Fla. 2014), the Florida Supreme Court stated, "[i]n the lethal injection context, 'the condemned inmate's lack of consciousness is the focus of the constitutional inquiry' ". *Valle v. State*, 70 So.3d 530, 539-540 (Fla. 2011). Also see, *Ventura v. State*, 2 So.3d 194 (Fla. 2009), and *Lightbourne v. McCollum*, 969 So.2d 326 (Fla. 2007).

In *Henry v. State*, 134 So.3d 938, 947 (Fla. 2014), the Florida Supreme Court stated, " The Supreme Court has held that to state a claim under the Eighth Amendment, a defendant must show that the state's lethal injection protocol is " ' *sure or very likely* to cause serious illness and needless suffering.' " ***Brewer v. Landrigan*, --- U.S. ----, 131 S.Ct. 445, 445, 178 L.Ed.2d 346 (2010)** (quoting ***Baze v. Rees*, 553 U.S. 35, 50, 128 S.Ct. 1520, 170 L.Ed.2d 420 (2008)** (plurality opinion))." The Florida Supreme Court went on to quote *Howell*, 133 So.3d at 517 (internal quotation marks omitted), "In other words, there must be a substantial risk of serious harm, an objectively intolerable risk of harm that prevents prison officials

from pleading that they were subjectively blameless for purposes of the Eighth Amendment."

The heavy burden to prove a substantial risk of serious harm or needless suffering is upon the Defendant, not the state, *Howell v. State*, 133 So.3d. 511 (Fla. 2014), and *Henry v. State*, 134 So.3d 938 (Fla. 2014).

In this case, the Defendant has not met his heavy burden to establish that he is "*sure or very likely*" to experience serious illness or needless suffering. The very purpose of the initial injection of midazolam is to render the Defendant unconscious before further proceeding with the execution. There is a chance that the Defendant may suffer an acute onset of porphyria by an accumulation of porphyrin in his tissues which could lead to the onset of pain but, based on the evidence presented, it is the Court's conclusion that the effects of midazolam will have rendered the Defendant unconscious and probably comatose by the time there is any risk of pain. The Defendant will be both unconscious and insensate before he would experience any possible onset of pain or a porphyria attack. Based thereon, it is **ORDERED AND ADJUDGED** that the Defendant's successive Motion to Vacate Judgment and Stay of Execution is **DENIED** as the Defendant has failed to meet his burden that Florida's lethal injection protocol, as applied to him, would violate the Eighth

Amendment of the United States Constitution prohibiting the infliction of cruel and unusual punishment.

DONE AND ORDERED in Bartow, Polk County, Florida, on this 1st day of July, 2014.

SUMMARY OF ARGUMENTS

Argument I.

The lower court erred by allowing state expert, Roswell Lee Evans, Jr., Pharm., FASHIP, FCCP, BCPP, to testify as an expert in an area outside of his expertise. Evans is not a medical doctor. He does not have any direct experience concerning individuals afflicted with porphryia. Evans also is not an anaesthesiologist. Moreover, the literature that Evans relied on for his opinions are regarding the administering of Midazolam in a clinical setting for the purposes medicine and/or surgery, with medical personnel present. The literature does not address the dangers of pain and suffering during lethal injection. Allowing Evans to testify outside of his area of expertise concerning these dangers, was error.

Argument II.

The lower court erred in denying Mr. Davis' claim that his "alleged porphyria creates a risk that he is sure or very likely to cause serious illness and needless suffering and give rise to sufficiently imminent dangers." Dr. Joel B.

Zivot, M.D. testified about how the appellant's medical condition will be exacerbated with the introduction of Midazolam during the lethal injection process. Dr. Zivot testified that there is a substantial risk that Mr. Davis will suffer from abdominal pain, tachycardia, and vomiting during the lethal injection process. His highly credentialed medical opinion was not rebutted by a medical doctors. Mr. Davis is entitled to a stay of execution until and unless a "safer" form of execution can be tailored for Mr. Davis.

ARGUMENT I

The Trial Court Erred in Allowing the State's Expert to Testify in an Area Outside of His Expertise, in Violation of Mr. Davis' 5th, 6th, 8th and 14th Amendment Rights, and Corresponding Rights in the Florida Constitution.

Mr. Davis' Due Process rights are being violated due to an unqualified witness testifying on matters based on pure speculation. Roswell Lee Evans, Jr. is not a medical doctor. He is not an anaesthesiologist, he has no direct experience in treating patients with porphyria, and he has never administered Midazolam in a clinical setting. Yet, he was permitted to offer an "expert" opinion regarding these matters. This was error.

In State v. Gilliam, this Court reversed and remanded the conviction and sentence of the appellant due to the failure of the trial court to strike the testimony of an unqualified expert. This Court held:

> Gilliam next argues that the court erroneously failed to strike the medical examiner's testimony that a sneaker found at the scene caused certain marks on the decedent. The examiner based her conclusions on an experiment in which she slapped a co-worker's back with the sneaker, leaving marks similar to those found on the decedent. She admitted, however, that she was not an expert on shoe-pattern evidence. An expert witness may testify only in his or her area of expertise. An expert opinion must not be based on speculation, but on reliable scientific principles. See Delap v. State, 440 So.2d 1242 (Fla. 1983). This medical examiner was not qualified as an expert in shoe patterns. Her testimony was neither reliable nor scientific and should not have been allowed. Id. at 1100.

In the case a bar, Evans' testimony is neither reliable nor scientific. Moreover, he did not testify in a area of his expertise.

FL. Rules of Evidence 90.702 states:

Testimony by experts.—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.

Mr. Davis' counsel preserved this issue with a timely objection, proceeded by a proper voir dire. (PCR Supp. P. 85-90). Evans is not an expert in the field of porphyria. Nor is he an anaesthesiologist. He is a pharmacologist who specializes in psychiatric patients. Evans has never administered Midazolam in a clinical setting, and he has derived all of his opinions from literature; not actual case studies, but literature.(PCR Supp. P. 103). Moreover, Evans testified that the literature which he cited referred to patients in a medical setting, with medical staff present, as opposed to Mr. Davis' execution, where no medical staff will be present to assist Mr. Davis. (PCR Supp. P. 106).

The State intends to rely on State v. Henry, 134 So.2d 938 (Fla. 2014), to support the position that Evans' testimony should be persuasive on these matters. However, in Henry, the state called Dr. Mark Dershwitz, a practicing anaesthesiologist, in the evidentiary hearing regarding the affects of Midazolam on Henry's alleged hypertension, high cholesterol, and coronary artery disease. In the case at bar, the appellant has porphyria, a unique and rare disease that requires

a particular level of expertise. In the case at bar, the state neglected to call Dr. Dershwitz during Davis' evidentiary hearing. They called a mere pharmacologist. Pursuant to Gilliam, the lower court erred in allowing Roswell Lee Evans, Jr. to testify during this case. Relief is proper.

ARGUMENT II

The Lower Court Erred in Denying Mr. Davis' Claim That He is Sure or Very Likely to Suffer Serious Illness or Needless Suffering During the Lethal Injection Process, in Violation of His 8th Amendment Rights and Corresponding Rights Under the Florida Constitution.

Eddie Wayne Davis suffers from porphyria. Forcing him to go through with the scheduled execution will cause him to suffer the "infliction of unnecessary and wanton pain". See Lightbourne v. McCollom, 969 So.2d 326, 349 (Fla. 2007), citing Gregg v. Georgia, 428 U.S. 153 (1976).

Dr. Joel Zivot, M.D., testified about the effects of Midazolam, the first drug in Florida's lethal injection cocktail as follows:

> BY MR. KILEY:
> Q. Would you state your name for the record, please, sir?
> A. Joel Bruce Zivot.
> Q. And are you a medical doctor, sir?
> A. I am.
> Q. Doctor, let's start a little bit with your background. Why don't you tell the court generally what your qualifications are, sir?

A. I went to medical school at the University of Manitoba in Winnipeg, Canada. I graduated in 1988. I then went to the University of Toronto and completed a residency in anesthesiology. I then moved to Cleveland, Ohio at the Cleveland Clinic and completed specialty training in anesthesiology and critical care medicine. I'm board certified in anesthesiology from the Royal College of Physicians of Canada and also from the American Board of Anesthesiology in both anesthesiology and critical care medicine. And presently I'm on the faculty at Emory University Hospital in Atlanta, Georgia. I'm the medical director of the Cardiothoracic Intensive Care Unit, and I'm a member of the Department of Anesthesiology and Surgery. And I practiceanesthesiology about a third of the time in the operating room, and the rest of the time I'm working in intensive care.

Q. Getting ahead of me, Doctor. Can you give the court an idea of what an anesthesiologist does in a surgical setting? Sure. Well, an anesthesiologist's job is to --to facilitate surgical procedure, and it can be something very simple or very complicated depending upon the coexisting medical condition of a -- of a patient.

Most would people understand that the anesthesiologist is the person whose job it is to make sure that the operation's not painful and that a person does not have a recollection of a surgical procedure. So anesthesiologists monitor physiologic functions, establish intravenous access, provide the combination of medications and support that allows surgical or -- and painful procedure to take place in the interests of making somebody better at the end of it.

Q. Well, sir, why is it important that the person not remember?

A. Well, I think that the reason why we recognize that amnesia, which is the term that we use, is important for most people is that if one can imagine being in the operating room under a circumstance where one is going

to have something done to them that's quite painful, first of all, the anticipation of that and the experience of that could be very disturbing. We understand that when people are subjected to painful experiences, they can -- they can -- it can result in serious long-term and sometimes permanent consequences in the effect of things, for example, like posttraumatic stress disorder.

Q. Oh, I see.

A. So the purpose of suppressing the recollection of the experience is to prevent, you know, the -- you know, the experience in the moment and also the experience after the fact when it's recalled or not to be recalled, to prevent things like posttraumatic stress disorder.

Q. Well, it doesn't deaden pain, correct, sir?

A. Well, anesthetics, when done correctly, do take away pain. Pain, we recognize, you know, is something that most of us are not interested in experiencing, and so modern anesthesia really, I think, has revolutionized the capacity to do surgery. There was a time in the past where surgery was conducted without anesthetics and surgery was not very popular, so clearly the capacity to withstand painful experiences has made, you know, surgery advancement possible.

Q. Do you -- let me go back to your experience a little bit. How often would you say you actually perform an anesthesiology in a surgical setting?

A. My time, probably these days, about a third of my time is spent as an anesthesiologist in the operating room.

Q. In the operating room?

A. Yes.

Q. Well, sir, how many surgeries have you been involved in, in your career?

A. Thousands. (PCR Supp. P. 19-22).

The testimony shown above demonstrates that Dr. Zivot is highly credentialed with a specific expertise in anaesthesia. Dr. Zivot testified about the disease, porphyria, as follows:

> BY MR. KILEY
> Q. Okay. Doctor, what's porphyria?
> A. Porphyria is a -- is a complicated condition. It's a condition that has to do with the -- an abnormal regulation in the production of a compound called heme. So heme is a compound in the body. This compound is normally made. It's -- we call it -- say it's biosynthesized, so it's created. And heme is a compound that is a part of other compounds. For example, heme is a part of something called hemoglobin. Hemoglobin is the molecule in all the red blood cells in the body that are responsible for the carrying of oxygen. Heme also becomes other sorts of compounds as well. It's a very common and important compound. And it's tightly regulated in the way that heme is made. We make just enough of it, not too much, and if we don'tmake enough of it, then its regulation and is -- it's
> changed.
> Q. Where is it made?
> A. So heme is made mostly in the bone marrow, but also in the liver.
> Q. Okay.
> A. And it's -- and the way that these systems work is that they have what's called a feedback, so when the -- when the body senses that heme levels are of a certain -- certain amount, say insufficient, then the body detects that there's not enough heme and it starts to make more. And also when the body detects that there's too much heme, it starts to make less, because heme itself has no purpose except as a product that turns into something else, and, in fact, heme by itself, you know, has some negative consequences.

Q. And what are they?

A. Well, they can cause a variety of things. They can cause the symptoms -- and maybe before I -- let me just -- if I could just comment again, so porphyria, to answer your question, is a condition where there's a --there's a break, if you will, in the normal regulation of the production of heme, and it has to do with -- with defects in various enzymes that are responsible that move -- you know, that generate this end compound, and there are several steps along the way where these enzymes can be broken or disregulated. It's a condition that can occur actually genetically, so you can be born with it. It's a condition also that can be acquired. And classically, there are certain kinds of stimuli, certain kinds of effects that when the body's exposed to these effects, then the condition becomes manifest.

Q. Like what, sir?

A. So, classically, porphyria can manifest as abdominal pain, severe abdominal pain. It can create --it can manifest as rashes, and then it's referred to as cutaneous porphyria. That's -- cutaneous just means on the skin. It can cause what's called neuropathy. Neuropathy is basically a condition where the nerves themselves that are responsible for the transmission of information from, say, the body to the brain and back become broken or they become, you know, they become affected, and when the nerves become affected, when they become dysfunctional, they can create a series of symptoms that can be very difficult for patients.

Q. For example, sir?

A. So when we have neuropathy, neuropathy can be experienced by people as a burning sensation or as a problem of heat and cold intolerance. Or there's something called allodynia. Allodynia is where even just the gentle touching of the skin with your hand can actually create a circumstance that it feels like pain. So we say that a stimulus that is -- normally should not be noxious -- and noxious meaning something that we

would all agree that that degree of stimulus would cause pain -- it's a non-noxious stimuli actually causing pain. For severe neuropathy, for example, even the sensation of the breeze on skin can be experienced as quite painful. So that's one of the problems of porphyria as

well. There's also neurological problems, I'm sorry, there are neurological problems that affect awareness that can lead to confusion. There can even be seizures. Porphyria can also cause nausea and vomiting and a variety of, again, sort of significant and unpleasant effects.

Q. Sir, what is the difference between cutaneous porphyria and acute porphyria?

A. Well, porphyria, again, is -- there are -- three are several different kinds of porphyria conditions, and they're all distinguished by which of these kind of side products end up becoming created in excess that would normally not be created because of this enzyme break. Cutaneous porphyria, again, just means that you can see it on the skin. And that sort of -- and the way that it happens, usually it's these -- these compounds that are referred to as porphyrins, which are, again, part of these kind of side products, end up being deposited in the skin, and it's actually the combination of sunlight or light of a certain wavelength that when it touches or when it interacts with these porphyrins that cause tissue destruction. So cutaneous just means that it can be seen. But people may have varieties of manifestations, not purely one or the other, and, you know, it's quite detailed as to the way that porphyria is actually broken down. But in common, it's a defect in this enzyme that regulates the production of this heme, and when that breaks, you know, all these things back up and they deposit in different parts of the body and that's --

Q. How do you treat it?

A. Well, there's a couple things. First of all --and I'm sorry. You also asked me about acute?

Q. Yes.

A. So the -- the acute, of course, means that it happens in an instant, in a moment, so -- and what we understand by that is that a certain kind of initiating

event occurs and the reaction is immediate. So it's not something that would, say, be chronic, for example, or maybe some exposure over long periods of time, you know, may have something. I mean, it can have that too. But acute really means that it's the -- it's the explanation for a severe and intense reaction, a porphyria crisis, if you will, that occurs when certain kinds of stimuli occur.

Q. Well, sir, if you have -- if you're presenting

with cutaneous porphyria --

A. Yes.

Q. -- can you also have acute porphyria?

A. Yes. Yes, you can.

Q. How about if you're not presenting with cutaneous porphyria, can you have acute porphyria?

A. Yes, you can.

Q. It's two different things?

A. Yes.

Q. All right. Well, sir, why does an anesthesiologist have to be aware of porphyria in patients?

A. Well, the reason is because we understand that there are a number of drugs that we use in the normal conduct of an anesthetic that have been shown to -- to create, to initiate, a porphyria crisis, and so it's important to know what porphyria is, to recognize it,and then when knowing it, to know that in the normal way of the medication that I would select to use, if I had a patient before me who had porphyria, I would use one group of medications, and if I know that the patient did

not have porphyria, then I would use another group of medication. So it really is very critically important toknow that there are certain medication that need to be

avoided, and some of these medications, again, are kind of common medications that we use under a normal

conduct with anesthetic, and so we have to set those medications

aside and not use them.

Q. So what's midazolam?

A. Midazolam is a drug in the class called a benzodiazepine, and a benzodiazepine is a -- is a chemical that has an effect when given to a person that results basically in a couple of things. It results in some sedation, some sleepiness. It can have an effect on anxiety. It can reduce anxiety. It can have some effects on the acquisition of memory. And midazolam is actually known for its capacity to -- to prevent or to

create what would be called anterograde amnesia. That is to say that after the fact, something may not be remembered. So to make this point a bit clearer, I -- if I have a patient before me who I give midazolam to, what I'm -- what classically will happen is that that patient and I can still have a conversation, we could have a

conversation, and then, say, the -- then I use other medications to render that person now unresponsive andin an anesthetic state, and then after the fact, when

the anesthetic is done and the -- and the patient is now revived, I could say to them afterwards, you know, do you recall that conversation that we had, and the person

may -- commonly will say no. So what's interesting about midazolam is that can you have a very kind of normal conversation with someone, but after the fact,

it's not recalled at all. So it's powerful in that way.

Q. Well, sir, if someone had acute porphyria, abdominal pain, tachycardia, anything involving acute porphyria, would midazolam ease that pain?

A. Well, what's -- the way that we classify compounds is that they have, again, certain properties. The one thing that I -- that when I described what benzodiazepines do, what they don't do is they don't take away pain.

A. Well, I think that the -- let me just address your question by, first of all, saying that whether or not midazolam is safe in a low dose is not clear. It's not clear, so -- and I think that the study that you mentioned suggests that even in a low dose, midazolam may not be safe. That is to say that it still actually has been shown to create something that looks like porphyria. It will accumulate porphyrin when -- when --in that study where liver cells were exposed to midazolam.

So I would even -- I'm not sure that I would agree that midazolam has necessarily been shown to be safe even in a low dose. But certainly in a larger dose, I think that what that paper shows, that sinceeven in low dosages midazolam has shown to create the accumulation of these porphyrin compounds, then the large dose, it would certainly create the accumulation of porphyrin.

Q. And bring about an attack of acute porphyria?

A. Yes.

Q. Sir, you stated in your affidavit, quote, basedon my review of Mr. Davis's medical record, it is myopinion that a substantial risk that during the execution --

MR. BROWNE: Objection, Your Honor, leading.

THE COURT: It is leading. Sustained.

Q. Doctor, did you -- did you sign an affidavit to this effect?

A. I did.

Q. All right. And what was your conclusion as a result of --

A. Well, given that -- that your client carries the diagnosis of porphyria, that if your client --

MR. BROWNE: Objection, foundation, Your Honor.

THE COURT: I have assumed for purposes of all of this at this point, to avoid the necessity of having further evaluations done to clinically determine whether or not he has porphyria or not, I've assumed for the purpose of all of this that he

has porphyria. That is not a finding that he, indeed, has it, but only a finding that I'm assuming that he has it for purposes of our issues here.

MR. 0KILEY: Very well, sir.

BY MR. KILEY:

Q. You may answer, Doctor.

A. So in an individual who has porphyria and in the circumstance that your inmate, we say, has porphyria, then if he is given a dose of midazolam that is contemplated in the execution protocol as I understand it, that is a very, very, very large dose, much larger than we would ever use in a clinical setting, and since to my point that a small dose can lead to a porphyria crisis, an extremely large dose will very likely lead -- you know, will lead to a porphyria crisis. With a very high degree of certainty, I make this claim.

Q. So would it lead to an attack of acute porphyria quicker than if you gave him a small dose of --

A. My opinion is yes, it will.

Q. Okay. And the side effects in Mr. Davis's casewould be abdominal pain, correct, sir?

A. Yes.

Q. What is t-a-c-h-y-c-a-r-d-i-a?

A. Tachycardia.

Q. What does it do?

A. It's an accelerated heart rate.

Q. Hypertension, what is that, sir?

A. High blood pressure.

Q. Nausea? Well, I think--

A. We know what nausea is.

Q. Yes, I do, sir. And vomiting?

A. Yes.

Q. So he would be in pain as a result of the introduction of a massive dose of --

A. Midazolam.

Q. -- midazolam? Doctor, have you ever administered anesthetic to a patient whom you expected to vomit?

A. Yes, I have.

Q. And what position -- how do you place this man in a position to vomit if you're expecting him to get sick?

A. Well, let me say that the reason that vomiting is of such grave concern is because if an individual vomits as they are losing consciousness, then the -- the

vomit, first of all, from the stomach is a very corrosive substance, and if that corrosive substance enters into the mouth and then goes into the lungs, then the corrosiveness of that substance can cause, you know, permanent and serious damage to the lungs, and so we're very mindful and concerned about the possibility of even a small amount of stomach contents entering the lungs, so we take steps to ensure that that does not happen. So, for example, when a person -- one method would actually be to put a plastic tube or breathing tube in a person's mouth when they're actually basically awake by using medication that numbs the skin and so on to tolerate, because it's something that no one would normally tolerate. But by putting the plastic tube in the airway, then that seals off, if you will, that if --the airway from the effects of vomit. That would be in an operating room. Another thing that we might do is that we'll certainly -- we'll have an individual, say, sitting up as opposed to lying flat, because at least the effect of gravity then is working in our favor and not against it. We might apply some pressure to the neck, something called cricoid pressure, where we push on the throat and push the cartilaginous portion of the trachea against the esophagus, the food pipe, and that prevents, again, passive regurgitation into the trachea, that's something else we might do.

Q. Sir, why did you say that Davis will suffer excruciating pain?

MR. BROWNE: Objection, Your Honor.

THE COURT: Sustained.

Q. Doctor, if the patient is experiencing pain, will the paralytic affect the pain?

A. Paralytics are -- let me just say that paralytics are drugs that are given where the -- where the effect is that they cause muscles in the body to become immobile, and so we -- you know, they result inparalysis that is temporary. So a person who is subjected to a paralyzing drug cannot move a muscle, cannot move an inch, cannot

move their finger. Now, what they can do is that they can have awareness that they cannot move. And paralyzing drugs don't affect the heart, so the -- which is a muscle itself, but they affect all the muscles that are involved in breathing and moving and so on, but they have -- they have no effect on a person's ability to know that something is happening around them. And certainly they have no effect on producing analgesia, and they have no effect on producing amnesia. All they do is that they paralyze the muscles of the body, and so if you get this, you can't move.

Q. Sir, what's neuropathy?

A. Neuropathy is a condition I think I had mentioned where nerves are -- are injured for a variety of reasons such that when they -- when they -- when they

fire their information, because the nerves themselves are damaged, the way that they conduct information becomes disrupted. And the experience of neuropathy is

anything from the nerve just not working at all to giving constant feelings that are painful to people who have neuropathy.

Q. Would a massive dose of midazolam trigger neuropathy?

A. Well, I think that the mechanism of how porphyria causes abdominal pain likely is related to the effect on the nerves, if you will, so that's the defect,

that's the mechanism. You know, pain, to be experienced, has to be propagated along nerves, so whenever you have pain, a nerve is the -- is the, if you will, the highway where the information is being -- is traveling, or the wire. Think of maybe nerves are like

wires and you've got electrical signals going along them, so when the wire itself is frayed or broken, then, again, the signal becomes all disrupted. Like imagine maybe taking a wire that's normally covered in plastic and then cutting the plastic off and then dipping it in water. And what would happen? It's something akin to that experience is what happens when these nerves are damaged, if you will,by, say, porphyria.

Q. Well, sir, you know, the scope of this hearing is to determine if midazolam will affect the pain rather.

MR. KILEY: One moment, Your Honor?

THE COURT: You may.

Q. Sir, do you have an opinion whether Davis's alleged porphyria creates a risk that is sure or very likely to cause serious illness and needless suffering and give rise to sufficiently imminent dangers?

A. Yes, I do have an opinion about that.

Q. What is your opinion, sir?

A. My opinion is that the exposure of midazolam in the dose that is planned will cause a significant

porphyria reaction that will be experienced as pain, nausea, and vomiting and -- and other very significant and disquieting experiences after being -- after being subjected to midazolam.

Q. And that is your -- is that your opinion based upon your experience as a medical doctor and an anesthesiologist?

A. And based upon my review of studies that have shown this to be -- be the case.

Q. Most notably the study of -- I don't want to say it again, the effects of antidepressants in benzodiazepines?

A. Yes, that one.

Q. You studied that?

A. I did.

MR. KILEY: Very well, sir. Nothing further, Your Honor.

(PCR Supp. P. 22-39)

The previous section of testimony gives a very detailed description of how Mr. Davis will suffer during the lethal injection process. Dr. Zivot explained how Midazolam will cause Mr. Davis to suffer abdominal pain, tachycardia, and vomiting. Regarding the vomiting, the fact that Mr. Davis will be laying supine and strapped down on the table, will cause him a great deal of suffering. The following passage is a very telling snippet from Dr. Zibot's direct rebuttal testimony:

> BY MR. KILEY:
>
> Q. Dr. Zivot, you heard Dr. Evans testify that a10 milligram dose will render a 223-pound man unconscious. Is that an accurate statement, sir?
>
> A. No.
>
> Q. Why not, sir? Have you ever given someone --have you ever done this; have you ever --
>
> A. I've given many people that amount of midazolam over my career, and someone of that weight and under even, you know, moderate health, but perhaps of a certain age, that amount of midazolam will not render a person unconscious, no.
>
> Q. Now, we're talking about Dr. Evans testified that there's no evidence that midazolam is unsafe. Did you hear him testify to that, sir?
>
> A. Yes.
>
> Q. Well, is it -- is there any evidence that there -- that it's safe?
>
> A. No.
>
> Q. And Dr. Evans was talking about a normal dosage of midazolam will not affect the infusion, if you will, of porphyrins. Did you hear him testify to that?
>
> A. Yes.

Q. Would you consider 500 milligrams of midazolam a normal dosage?

A. No.

Q. Doctor, to distinguish, midazolam, that is an analgesic, correct, sir?

A. Midazolam is not an analgesic, no, not at any dose.

Q. Well, how does an analgesic work?

A. Well, analgesics are drugs that specifically work to prevent the experience of pain. And so I think it's a fundamental question as to whether or not a person who is responsive or less

responsive can experience pain. And I will tell you that to render someone unresponsive or less responsive after midazolam would be -- would have -- one of the

things that would require a dosage adjustment would be how much pain a person was having. So let's say that a person had a fracture and they were going to -- and they

were given midazolam and you were trying to get them to be unresponsive, it would -- it would be very difficult to do that, to get them to be unresponsive if they're experiencing pain, because pain kind of works against

the effects of midazolam in terms of its capacity to render somebody unresponsive. It would be difficult to do that.

Q. Now, Doctor, what would be an example of an analgesic?

A. An example of an analgesic would be drugs of anarcotic class like morphine.

Q. Like opium --

A. Yeah.

Q. -- an opium derivate --

A. Opioids.

Q. -- derivative?

A. Yes. Yes, that's an example.

Q. So in other words, if you give him midazolam, how do you know he's not going to feel pain?

A. Not only do you not know that he's going to feel pain, but I would assume in certain -- certain circumstance that he could feel pain.

Q. And, sir, is it your contention or your opinion that a massive dose, 500 milligrams, of midazolam would trigger an incident of pure -- of acute porphyria?

A. **Yes. And I just want to add, too, that with respect to the question about pain, I think the question is how long does the pain have to be experienced for. If the**

pain -- say the pain lasts 10 seconds, say it's 10seconds of excruciating pain before a person dies, I guess my -- you know, my concern is that I don't know how many seconds of pain we're allowing to have here. I think that what we're saying is that there can be no pain at all, none. So if there is pain, if there's acute and serious pain, and even -- even if one could imagine would occur for a period of seconds, I

would suggest that most people couldn't imagine or stand, if you will, serious pain even for a moment. The pain of any duration is entirely, you know, undesirable. No one would wish that upon themselves. So I think that this idea of trying to say that

how much pain or how long could the pain be there, the fact remains that there is a real possibility that pain will be experienced before death, and that, I think, is what's at issue. (Emphasis Added)

(PCR Supp. P. 117-121).

Regardless of the horrible facts from Mr. Davis' case–all capital cases have troubling facts–Mr. Davis is entitled to the full protections of the United States Constitution. Without being rebutted by a qualified expert, Dr. Zivot opined that

Mr. Davis faces a substantial risk of serious harm or needless suffering. Howell v. State, 133 So.2d 511 (Fla. 2014). Dr. Zivot's testimony is not rebutted concerning the intense pain and suffering that Mr. Davis will experience during the execution, due to how Midazolam will react with his acute porphyria. Due to the paralytic, Mr. Davis is unable to cry out for assistance; not that any legitimate medical professionals will be present to assist him anyway. The paralytic is not for the aid and comfort of Mr. Davis. The paralytic is so the viewers can sit and watch someone slowly die, and not go through the "discomfort" of watching him thrash about and cry for help.

There is a substantial risk or likelihood that Mr. Davis will suffocate on his own vomit, due to laying in a supine position and strapped down. Mr. Davis' Eighth Amendment Rights against cruel and unusual punishment will be violated. Mr. Davis is entitled to relief, because he is sure or very likely to suffer from serious illness or needless suffering during his execution. See Baze v. Rees, 553 U.S. 35, 50, 128 S.Ct. 1520, 170 L.Ed.2d 420 (2008).

CONCLUSION AND RELIEF SOUGHT

In light of the facts and arguments presented above, Mr. Davis contends the trial court erred. Mr. Davis moves this Honorable Court to:

1. Stay Mr. Davis' execution and order that the lethal injection protocols be reviewed and revised, as applied to Mr. Davis' unique medical circumstances.

. Order that the State of Florida not carry out the execution of the sentence, unless and until reasonable and necessary steps are taken to determine how Mr. Davis may be executed in a constitutional manner.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on July 2nd, 2014, I electronically filed the forgoing **Supplemental Initial Brief of Appellant** with the Clerk of the Court by using the e-filing portal system which will send notice of electronic filing to the following: Judge Donald G. Jacobsen (JA Melanie M. Komorowski) mkomorowski@Jud10.FlCourts.org,wallace.rana@mail.dc.state.fl.us, warrants@flcourts.org.support@ccmr.state.fl.us,jaguero@sao10.comandcdaniels@sao10.com,capapp@myfloridalegal.com,deborah.speer@myfloridalegal.com,paula.montlary@myfloridalegal.com, Candance Sabella, Chief Assistant Attorney General, candance.sabella@myfloridalegal.com , Stephen D. Ake, Assistant Attorney General, stephen.ake@myfloridalegal.com , and Timothy A. Freeland, Assistant Attorney General, timothy.freeland@myfloridalegal.com ,

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HEREBY CERTIFY that a true copy of the foregoing Supplemental Initial Brief of Appellant was generated in a Times New Roman 14 point font, pursuant to Fla. R. App. P.9.210.

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