

IN THE COURT OF APPEALS
TWELFTH APPELLATE DISTRICT OF OHIO
WARREN COUNTY

STATE OF OHIO,	:	
Plaintiff-Appellee,	:	CASE NO. CA2014-12-146
- vs -	:	<u>OPINION</u> 9/21/2015
HAMZA SHALASH,	:	
Defendant-Appellant.	:	

CRIMINAL APPEAL FROM WARREN COUNTY COURT OF COMMON PLEAS
Case No. 12CR28290

David P. Fornshell, Warren County Prosecuting Attorney, Michael Greer, 500 Justice Drive, Lebanon, Ohio 45036, for plaintiff-appellee

Rion, Rion and Rion, Jon Paul Rion, Nicole L. Rutter-Hirth, 130 West Second Street, Suite 2150, P.O. Box 10126, Dayton, Ohio 45402, for defendant-appellant

PIPER, P.J.

{¶ 1} Defendant-appellant, Hamza Shalash, appeals his conviction in the Warren County Court of Common Pleas on multiple counts of aggravated trafficking in controlled substance analogs and one count of engaging in a pattern of corrupt activity, for which he was sentenced to 11 years in prison. For the reasons that follow, we affirm the judgment of the trial court.

{¶ 2} In 2012, appellant was indicted on eight counts of aggravated trafficking in a controlled substance analog in violation of either R.C. 2925.03(A)(1) or (A)(2), which were charged as either a first-, second-, third-, or fourth-degree felony,¹ and one count of engaging in a pattern of corrupt activity in violation of R.C. 2923.32(A)(1), a first-degree felony. Appellant filed a motion in limine to prohibit the state from presenting expert testimony to prove that the substances seized from his premises were controlled substance analogs, and requested a *Daubert* hearing on the matter.² The trial court denied appellant's motion in limine, without holding a *Daubert* hearing. After a two-day jury trial appellant was convicted on all nine counts, and the trial court sentenced him to an aggregate 11-year prison term.

{¶ 3} Appellant appealed his conviction to this court, arguing the trial court erred in denying his motion in limine to exclude the state's expert witness testimony without holding a *Daubert* hearing. *State v. Shalash*, 12th Dist. Warren No. CA2013-06-052, 2014-Ohio-2584, ¶¶ 15-16. We agreed with appellant's argument, reversed his conviction, and remanded the matter for further proceedings. *Id.* at ¶ 55.

{¶ 4} On remand, the trial court held a *Daubert* hearing, during which both parties presented expert testimony regarding the scientific reliability of determining whether controlled substance analogs were "substantially similar" to controlled substances, both in terms of composition and in the effect controlled substance analogs have on persons who use them. Afterwards, the trial court issued a decision ruling that the state's "expert testimony will be admitted." The trial court found that (1) the "visual assessment/comparison method" used by the state's experts is no different than forensic methods employed by chemists for decades; (2) the procedures used by the Miami Valley Regional Crime

1. Five of the eight counts were charged as fourth-degree felonies while the remaining three counts were charged as felonies of either the first, second, or third degree.

2. See *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S.Ct. 2786 (1993).

Laboratory (MVRCL) are objectively verifiable, are validly derived from widely accepted principles of forensic chemistry, and are conducted in a way that will yield an accurate result; and (3) the expert pharmacological testimony to be offered is grounded in traditional science generally accepted in the scientific community." Additionally, the trial court determined that "pursuant to the law that existed at the time of this offense, the question of 'substantially similar' is a factual question for the jury to resolve."

{¶ 5} Appellant then moved to dismiss the case on the ground that the sale of controlled substance analogs was not criminalized at the time he sold them. The trial court denied appellant's motion to dismiss. With the court participating in a discussion between the parties regarding several issues including appellant's anticipated appeal, appellant pled no contest to the charges in the indictment. The trial court accepted appellant's no contest plea, found him guilty as charged, and sentenced him to an aggregate 11-year prison term.

{¶ 6} Appellant now appeals, assigning the following as error:

{¶ 7} Assignment of Error No. 1:

{¶ 8} THE TRIAL COURT ERRED IN FAILING TO GRANT SHALASH'S MOTION TO DISMISS BECAUSE CONTROLLED SUBSTANCE ANALOGS WERE NOT CRIMINALIZED AT THE TIME SHALASH WAS ALLEGED TO HAVE COMMITTED THESE OFFENSES.

{¶ 9} Assignment of Error No. 2:

{¶ 10} THE TRIAL COURT ERRED IN HOLDING THE STATE COULD PRESENT EXPERT TESTIMONY AT TRIAL THAT THE SUBSTANCES AT ISSUE WERE SUBSTANTIALLY SIMILAR TO CONTROLLED SUBSTANCES BECAUSE THIS EVIDENCE WAS UNRELIABLE.

{¶ 11} In his first assignment of error, Shalash argues the trial court erred in denying his motion to dismiss the charges against him, because controlled substance analogs were

not criminalized at the time he allegedly committed the offense of aggravated trafficking of such substances. Specifically, Shalash contends that, at the time he was alleged to have sold controlled substance analogs, which was from January 2012 to February 2012, R.C. 2925.03(A) criminalized selling or offering to sell controlled substances, but did not criminalize selling or offering to sell controlled substance *analogs*. He notes that at the time of his alleged offenses, the term "controlled substance analog" did not appear in R.C. Chapter 2925, and that it was not until December 2012 that "controlled substance analog" was added to R.C. 2925.03(A) and 2925.01(A). He asserts that since controlled substance analogs were not criminalized until ten months after he was indicted for trafficking in such substances, the indictment against him should have been dismissed.

{¶ 12} In support of his argument, appellant relies on *State v. Smith*, 10th Dist. Franklin Nos. 14AP-154 and 14AP-155, 2014-Ohio-5303. In that case, Smith was indicted on five counts of aggravated possession of controlled substance analogs and five counts of aggravated trafficking in controlled substance analogs. *Id.* at ¶ 2. Smith moved to dismiss the indictment, asserting that controlled substance analogs were not criminalized at the time his alleged offenses occurred, and therefore he could not be convicted of the offenses for which he had been indicted. *Id.* at ¶ 3. The trial court agreed with Smith's arguments and granted his motion to dismiss the indictments and charges against him. *Id.* The state appealed the trial court's decision to the Tenth District Court of Appeals, which upheld the trial court's decision. *Id.* at ¶ 1, 22.

{¶ 13} The Tenth District observed that, in 2011, the General Assembly enacted House Bill 64, which became effective on October 17, 2011. *Id.* at ¶ 7. The court acknowledged that House Bill 64 created a definition of "controlled substance analog" in R.C. 3719.01(HH). House Bill 64 also provided that "[a] controlled substance analog, to the extent intended for human consumption, shall be treated for purposes of any provision of the

Revised Code as a controlled substance in schedule I." *Id.*, citing 2011 Sub.H.B. No. 64. This latter provision in H.B. 64 was codified in R.C. 3719.013.

{¶ 14} The Tenth District noted in *Smith* that "[c]ourts apply the 'rule of lenity' when faced with ambiguity in a criminal statute[,]" *id.* at ¶ 9, and that under the rule of lenity, "ambiguity in a criminal statute is construed strictly so as to apply the statute only to conduct that is *clearly* proscribed." (Emphasis added by the Tenth District.) *Id.*, quoting *State v. Straley*, 139 Ohio St.3d 339, 2014-Ohio-2139, ¶ 10.

{¶ 15} The Tenth District observed that at the time of Smith's alleged acts, R.C. Chapter 2925, which governs criminal drug offenses, defined certain terms by incorporating the definitions contained in R.C. Chapter 3719. *Id.* at ¶ 12. However, the court observed that "[n]otably, the list of definitions contained in R.C. 2925.01(A) * * * did not expressly incorporate the definition of 'controlled substance analog' created in House Bill 64 and codified as R.C. 3719.01(HH)." *Id.* After citing the canon of statutory construction, "expressio unius est exclusio alterius," i.e., "the express inclusion of one thing implies the exclusion of the other[,]" the Tenth District stated that "arguably, by creating a definition of 'controlled substance analog' in R.C. 3719.01(HH) under House Bill 64 but failing to incorporate that definition into R.C. 2925.01, the General Assembly *excluded* that definition from applying in the context of the criminal drug offense statutes." *Id.* (Emphasis sic.)

{¶ 16} The Tenth District further found that the ambiguity under the law as amended by House Bill 64 is also demonstrated by comparing the treatment of controlled substance analogs with the treatment of certain chemical compounds referred to as 'spice.'" *Id.* at ¶ 13. The court noted that unlike the amendments it made to Chapter 2925 in order to criminalize spice, the General Assembly "did not amend R.C. 2925.03 or 2925.11 to expressly prohibit the sale or possession of controlled substance analogs and did not amend any part of Chapter 2925 to explicitly refer to controlled substance analogs[.]" *Id.*

{¶ 17} The Tenth District rejected the state's argument that R.C. 3719.013, which provides that a controlled substance analog "shall be treated for purposes of any provision of the Revised Code as a controlled substance in schedule I," "necessarily incorporated controlled substance analogs into all parts of the Revised Code addressing schedule I controlled substances[.]" *Id.* at ¶ 14. The court noted that Chapter 3719 "generally relates to the civil regulation of controlled substances, not to criminal enforcement[.]" and that at the time Smith allegedly committed his offenses, "there were no cross-references or any other indicators in Chapter 2925 to provide notice that the treatment of controlled substance analogs under Chapter 3719 also applied to Chapter 2925." *Id.* The court added that "[a]lso confusing is R.C. 3719.01(HH)(2)(a), which states that "'controlled substance analog" does not include any of the following: (a) A controlled substance,' seemingly contradicting R.C. 3719.013." *Id.*

{¶ 18} The Tenth District further found that "the placement of the relevant provisions within the overall statutory structure [of House Bill 64] also demonstrates a notable distinction between [that measure and the federal Controlled Substance Analogue Enforcement Act (CSAEA) of 1986]." *Id.* at ¶ 15. The court observed that under the CSAEA of 1986, "all of the relevant provisions, including the definition of 'controlled substance analogue' and the requirement that such analogues be treated as controlled substances, were placed into the same portion of federal law that contained the prohibitions on possession and sale of controlled substances[.]" *Id.* The court noted that "[b]y contrast, House Bill 64 placed the controlled substance analog provisions in Chapter 3719 separate from the prohibitions and penalties set forth in Chapter 2925, and failed to incorporate any explicit cross-references in Chapter 2925 to the controlled substance analog provisions." *Id.*

{¶ 19} "Applying the rule of lenity," the Tenth District concluded that, at the time Smith committed his offenses, i.e., from February 2012 through July 2012, "R.C. 2925.03 and

2925.11 did not adequately 'state a positive prohibition * * * and provide a penalty for violation of such prohibition' on the sale or possession of controlled substance analogs [as required by R.C. 2901.03(B),]" and therefore the acts Smith allegedly committed "were not clearly defined as criminal offenses under the law as it existed at the time." *Id.* at ¶ 16. Consequently, the Tenth District found that the trial court did not err by granting Smith's motion to dismiss the indictments against him. *Id.*³

{¶ 20} Appellant requests that we follow *Smith* in this case. We decline to do so.

{¶ 21} When reviewing a trial court's decision regarding a motion to dismiss, this court applies a de novo standard of review, meaning that we give no deference to the trial court's decision. *State v. Hubbard*, 12th Dist. Preble No. CA2004-12-018, 2005-Ohio-6425, ¶ 6.

{¶ 22} The primary goal of statutory construction is to determine the General Assembly's intent. *State v. Kormos*, 12th Dist. Clermont No. CA2011-08-059, 2012-Ohio-3128, ¶ 14. The first step in determining legislative intent is to look at the language of the statute. *Id.* If the meaning of the statute is clear and definite, then the statute must be applied as written. *Id.* However, if the language of the statute is ambiguous and subject to more than one meaning, then further interpretation is needed. *Id.*

{¶ 23} In House Bill 64, which became effective on October 17, 2011, the General Assembly amended R.C. 3719.01 by adding subsection (HH), which defines "controlled substance analog." House Bill 64 also added R.C. 3719.013, which provides that "[a] controlled substance analog, to the extent intended for human consumption, shall be treated for purposes of any provision of the Revised Code as a controlled substance in schedule I." (Emphasis added.) We emphasize the word "any" because "any" means "all" or "without limitation." See *Wachendorf v. Shaver*, 149 Ohio St. 231, 239-240 (1948). See, also, *United*

3. The Tenth District has followed *Smith* in *State v. Mohammad*, 10th Dist. Franklin No. 14AP-662, 2015-Ohio-1234; and *State v. Mobarak*, 10th Dist. Franklin No. 14AP-517, 2015-Ohio-3007.

States v. Gonzales, 520 U.S. 1, 5, 117 S.Ct. 1032 (1997) ("Read naturally, the word 'any' has an expansive meaning, that is, 'one or some indiscriminately of whatever kind.' Webster's Third New International Dictionary 97 [1976]").

{¶ 24} The plain and clear language of R.C. 3719.013 incorporated controlled substance analogs into every other chapter of the Revised Code, including R.C. Chapter 2925. Therefore, the sale or possession of controlled substance analogs was criminalized as of October 17, 2011, the date House Bill 64 became effective, and thus controlled substance analogs were criminalized at the time appellant committed the offenses with which he was charged.

{¶ 25} Additionally, since the words in R.C. 3719.013 are unambiguous, there is no need to resort to the canons of statutory construction, as the Tenth District did in *Smith*. The Ohio Supreme Court has made it clear that the rule of lenity applies *only* when the criminal statute in question is ambiguous. *State v. Elmore*, 122 Ohio St.3d 472, 2009-Ohio-3478, ¶ 40. We do not, nor did the court in *Smith*, find R.C. 3719.013 to be ambiguous. The court in *Smith* found that the ambiguity arose because the reference to analogs was placed in Chapter 3719, rather than Chapter 2925. *Id.* at ¶ 14. The court in *Smith* noted that Chapter 3719 generally pertains to the civil regulation of controlled substances while Chapter 2925 governs criminal offenses. However, there is frequent interplay and integration for purposes of implementation between Chapters 3719 and 2925 as schedule I is mentioned in various places in Chapter 3719. Indeed, the court in *Smith* acknowledged this frequent interplay and integration by noting that R.C. Chapter 2925 defines certain terms by incorporating the definitions contained in R.C. Chapter 3719. *Id.* at ¶ 12.

{¶ 26} Ironically, the court in *Smith* cited the interplay and integration between Chapters 3719 and 2925 and the canon of statutory construction, *expressio unius est exclusio alterius*, in support of its observation that, by creating a definition of "controlled

substance analog" in R.C. 3719.01(HH) and then failing to incorporate that definition into R.C. 2925.01, the General Assembly "arguably" excluded that definition from applying in the context of criminal drug offenses. *Id.* However, the maxim does not apply to every statutory list or group; rather, it applies only when the items expressed in the list or group are members of an associated group or series that would justify an inference that the items not mentioned were intentionally excluded by the legislature. *Summerville v. Forest Park*, 128 Ohio St.3d 221, 2010-Ohio-6280, ¶ 35. Here, the frequent interplay and integration for purposes of implementation between Chapters 3719 and 2925, which the court in *Smith* acknowledged, undermines any suggested inference that by placing the definition of "controlled substance analog" in R.C. 3719.01(HH), the General Assembly deliberately intended to exclude that definition from applying in the context of the criminal drug offense statutes.

{¶ 27} Additionally, it has also long been held that the maxim "[l]ike other canons of statutory construction[,] * * * is only an aid in the ascertainment of the meaning of the law, and must yield whenever a contrary intention on the part of the lawmaker is apparent." *Wachendorf*, 149 Ohio St. at 239-240. Here, a contrary intention on the part of the General Assembly is apparent from R.C. 3719.013, which provides that a controlled substance analog "shall be treated for purposes of *any* provision of the Revised Code as a controlled substance in schedule I." (Emphasis added.)

{¶ 28} As R.C. 3719.013 is clear and unambiguous on its face, appellant's first assignment of error is overruled.

{¶ 29} In his second assignment of error, appellant argues the trial court erred in denying his motion in limine to prohibit the state from presenting expert testimony showing that the alleged controlled substance analogs were "substantially similar" to controlled substances. Specifically, he contends that the expert testimony is unreliable under *Daubert*. However, before addressing the substantive arguments raised by appellant in his second

assignment of error, we must first consider whether appellant's no contest plea preserved for appellate review the trial court's ruling on his motion in limine.

{¶ 30} A trial court's ruling on a motion in limine, including a motion to exclude expert testimony, is a tentative, interlocutory, and precautionary ruling that reflects the trial court's anticipated treatment of an evidentiary issue that may arise at trial. *State v. Harris*, 12th Dist. Butler No. CA2007-11-280, 2008-Ohio-4504, ¶ 27. A motion in limine is directed to the trial court's discretion on an evidentiary issue that might arise at trial but that has not yet been presented in full context. *Id.* Generally, a trial court's ruling on a motion in limine does not preserve for review any error the trial court may have made in ruling on the motion; rather, any claimed error "must be preserved at trial by an objection, proffer, or ruling on the record[.]" and "[f]ailing to object to the admissibility of the evidence at trial waives any error except plain error." *Id.* However, not all motions in limine are alike. See *State v. Johnston*, 2d Dist. Montgomery No. 26016, 2015-Ohio-450, ¶ 14-16; *State v. Echard*, 9th Dist. Summit No. 24643, 2009-Ohio-6616, ¶ 14-31, Dickson, J., dissenting.

{¶ 31} A definitive or exclusionary motion in limine has been called "the functional equivalent" of a motion to suppress. *State v. Johnston*, 2015-Ohio-450 at ¶ 16, citing *State v. French*, 72 Ohio St.3d 446, 450 (1995). A motion in limine may be used "as the *functional equivalent* of a motion to suppress evidence that is either not competent or improper due to some unusual circumstance not rising to the level of a constitutional violation." (Emphasis sic.) *Id.* "The essential difference between a Crim.R. 12[(C)] motion [e.g., a pretrial motion to suppress] and a motion in limine is that the former is capable of resolution without a full trial, while the latter requires consideration of the issue in the context of the other evidence.' (Emphasis deleted.)" *Johnston* at ¶ 17, quoting *State v. Hall*, 57 Ohio App.3d 144, 146 (8th Dist.1989).

{¶ 32} In *Johnston*, the appellant, Johnston, was charged with a number of crimes,

including kidnapping, rape, sexual battery, and aggravated menacing. *Id.* at ¶ 2. Johnston pled not guilty by reason of insanity. *Id.* at ¶ 3. When the state's psychologist determined that Johnston was competent to stand trial, Johnston sought a second evaluation by another psychologist who found that Johnston was legally insane at the time of the alleged offenses due to an amphetamine-induced psychotic disorder and a chronic mood disorder not otherwise specified. *Id.* at ¶ 4. The state filed a motion in limine to exclude any testimony or evidence at trial as to Johnston's alleged psychiatric or psychological conditions that are related to his voluntary ingestion of drugs and requested a *Daubert* hearing to determine whether the expert opinion of Johnston's psychologist was admissible. *Id.* at ¶ 5.

{¶ 33} After holding a hearing, the trial court granted the state's motion in limine and issued an order excluding the testimony of Johnston's psychologist on the ground that it was improper under R.C. 2901.21(C), which precludes using voluntary intoxication as a defense. *Id.* at ¶ 8. Johnston then pled no contest to the charges in the indictment. *Id.* at ¶ 9. Defense counsel represented that Johnston entered the plea because the trial court's ruling excluding the testimony of his psychologist destroyed his sole defense and Johnston wanted the opportunity to appeal the ruling." *Id.* The trial court accepted defense counsel's representation, without any comment. The trial court then accepted Johnston's no contest plea, found him guilty, and sentenced him to an aggregate ten-year prison term. *Id.*

{¶ 34} On appeal, Johnston argued the trial court "erred and abused its discretion" in granting the state's motion in limine and excluding the testimony of his expert psychologist and that his psychologist's opinion on the issues of insanity and involuntary intoxication should have been permitted. *Id.* at ¶ 12. The state argued the trial court's ruling on the motion in limine was a preliminary, interlocutory order, and therefore, was not reviewable on appeal. *Id.*

{¶ 35} The Second District Court of Appeals rejected the state's argument, finding that

the trial court's "ruling on the State's motion in limine was the functional equivalent of a suppression ruling[.]" since "[t]he trial court's ruling on the motion was not akin to a preliminary, anticipatory ruling that needed to be finalized at trial[.] * * * rather, the trial court conclusively determined that [Johnston's psychologist] would not be allowed to testify at trial because his testimony was improper under R.C. 2901.21(C)." *Id.* at ¶ 23.

{¶ 36} The court also observed that this was not a situation where the admissibility of the expert testimony could have been determined only in the context of the other evidence presented at trial and that the admission of the expert evidence was not dependent on a foundation being laid at trial; instead, "[l]ike a suppression hearing, all the evidence and testimony necessary to make this decision was presented at the evidentiary hearing where [Johnston's psychologist] was fully questioned and cross-examined by the parties." *Id.* at ¶ 24. Therefore, the court found that "the motion was assessed in its full evidentiary/testimonial context and a conclusive ruling was thereafter made." *Id.*

{¶ 37} Additionally, the court noted that "during Johnston's plea hearing, the trial court indirectly indicated that Johnston would be able to appeal the evidentiary ruling excluding [his psychologist's] testimony and the State did not disagree." *Id.* at ¶ 25. The court concluded that "Johnston's challenge to the trial court's evidentiary ruling excluding [his psychologist's] testimony was preserved for appeal despite being labeled in limine, as it is the equivalent of a suppression ruling that was fully developed and ripe for determination." *Id.* at ¶ 26.

{¶ 38} Having examined the case law on this issue, we conclude that a trial court's ruling on a motion in limine may be preserved for review by a no contest plea if (1) the motion in limine is being used as the "functional equivalent" of a motion to suppress evidence that is either improper or not competent due to some circumstance not rising to the level of a constitutional violation, (2) there is a clear understanding between the trial court and the parties that the trial court's ruling on the evidentiary issue presented will be preserved for

review, (3) the evidentiary issue has been contested and fully developed in the record, and (4) the evidentiary issue was conclusively determined without a trial and is ripe for appellate review.

{¶ 39} Applying this rule to the case before us, we conclude that all of these requirements have been met. Therefore, the trial court's refusal to grant appellant's motion in limine, which was the "functional equivalent" of a motion to suppress, to prohibit the state from presenting expert testimony on whether controlled substance analogs were substantially similar to controlled substances was preserved for review. We now turn to the issue of whether the trial court erred in denying appellant's motion in limine.

{¶ 40} The specific issue at the *Daubert* hearing was whether the state should be prohibited from presenting expert testimony regarding the controlled substance analogs being substantially similar to controlled substances. The proposed testimony involved both the substances' chemical and molecular structure and the effect the substances have on the central nervous systems of the persons using them. The trial court, applying the factors listed in *Daubert*, determined that the expert testimony that the state wanted to present on this issue was reliable, and thus denied appellant's request to prohibit the state from presenting the expert testimony.

{¶ 41} Appellant argues the trial court erred or abused its discretion when it refused to prohibit the state from presenting this expert testimony at trial. Specifically, appellant argues (1) the term "substantially similar" has no commonly accepted definition, (2) the scientific technique or methodology used to determine whether a controlled substance analog is substantially similar to a controlled substance is not generally accepted, and (3) there was insufficient evidence to prove that the controlled substance analogs have the same or greater effect on the central nervous system of persons who use them as a controlled substance would have.

{¶ 42} While appellate courts generally review a trial court's ruling on a motion in limine under an abuse-of-discretion standard, this is an improper standard of appellate review to use where the motion in limine is the functional equivalent of motion to suppress. *Johnston*, 2015-Ohio-450 at ¶ 27. In that instance, an appellate court uses the standard of review applicable to a motion to suppress. *Id.* In reviewing a trial court's decision on a motion to suppress, an appellate court must accept as true the trial court's findings of fact if they are supported by competent, credible evidence, and then independently determine, without deference to the trial court's decision, whether the facts satisfy the applicable legal standard. *Id.* at ¶ 28.

{¶ 43} The issue raised by appellant in his motion in limine involved whether to admit or exclude expert testimony. Therefore, the "applicable legal standard" in this case is Evid.R. 702, which governs the admission of expert testimony.

{¶ 44} Evid.R. 702 states as follows:

A witness may testify as an expert if all of the following apply:

(A) The witness' testimony either relates to matters beyond the knowledge or experience possessed by lay persons or dispels a misconception common among lay persons;

(B) The witness is qualified as an expert by specialized knowledge, skill, experience, training, or education regarding the subject matter of the testimony;

(C) The witness' testimony is based on reliable scientific, technical, or other specialized information. To the extent that the testimony reports the result of a procedure, test, or experiment, the testimony is reliable only if all of the following apply:

(1) The theory upon which the procedure, test, or experiment is based is objectively verifiable or is validly derived from widely accepted knowledge, facts, or principles;

(2) The design of the procedure, test, or experiment reliably implements the theory;

(3) The particular procedure, test, or experiment was conducted in a

way that will yield an accurate result.

{¶ 45} The Ohio Supreme Court has held that "[c]ourts should favor the admissibility of expert testimony whenever it is relevant and the criteria of Evid.R. 702 are met." *State v. Nemeth*, 82 Ohio St.3d 202, 207 (1998), quoting *State v. Williams*, 4 Ohio St.3d 53, 57-58 (1983). Evid.R. 702(C) requires a trial court to find that "[t]he witness' testimony is based on *reliable* scientific, technical, or other specialized information" and "[t]o the extent that the testimony reports the result of a procedure, test, or experiment, the testimony is *reliable* only if all of [conditions listed in Evid.R. 702(C)(1)-(3)] apply[.]" However, "Evid.R. 702 does not define 'reliability' in the context of admitting expert testimony." *Nemeth* at 209.

{¶ 46} The Ohio Supreme Court has set forth four factors to be considered by courts "in evaluating the reliability of scientific evidence: (1) whether the theory or technique has been tested, (2) whether it has been subjected to peer review, (3) whether there is a known or potential rate of error, and (4) whether the methodology has gained general acceptance." *Id.* at 211, citing *Miller v. Bike Athletic Co.*, 80 Ohio St.3d 607 (1998), citing *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 593-594, 113 S.Ct. 2786 (1993). "[N]one of these factors is a determinative prerequisite to admissibility." *Nemeth*, citing *Miller* at 612-613 and *Daubert* at 593.

{¶ 47} The Ohio Supreme Court also stated in *Nemeth* as follows:

Relevant evidence based on valid principles will satisfy the threshold reliability standard for the admission of expert testimony. The credibility to be afforded these principles and the expert's conclusions remain a matter for the trier of fact. The reliability requirement in Evid.R. 702 is a threshold determination that should focus on a particular type of scientific evidence, not the truth or falsity of an alleged scientific fact or truth. "In other words, the court need not make the initial determination that the expert testimony or the evidence proffered is true before submitting the information to the jury." *State v. Pierce*, 64 Ohio St.3d at 501, 597 N.E.2d at 115, quoting *United States v. Jakobetz* (C.A.2, 1992), 955 F.2d 786, 796-797.

{¶ 48} In the present case, the state presented the expert testimony of Brook Ehlers, a forensic chemist with MVRCL, who testified about the procedure that she and other chemists at MVRCL use in examining substances that are suspected of being controlled substance analogs. Ehlers testified that after a chemist determines that the substance in question is *not* a controlled substance, the chemist then determines whether or not the substance is "structurally similar" to a controlled substance. The definition MVRCL uses in determining whether a substance is structurally similar to a controlled substance is whether the "vast majority" of a molecule of the substance in question is the same as a molecule of a schedule I or II controlled substance. This determination is made by the chemists at MVRCL using 2-D models of both substances. Ehlers defines the term "vast majority" or "vast amount" as meaning that the molecule of the substance in question and the molecule of the controlled substance have more in common than not. Ehlers testified that other forensic scientists use a similar definition.

{¶ 49} The state also presented the expert testimony of Dr. Jon Sprague, who has a PhD in pharmacology and toxicology. Dr. Sprague testified that for 25 years, he has researched controlled substance analogs such as synthetic cannabinoids, synthetic cathinones, ecstasy, and bath salts. Dr. Sprague testified as to both the molecular structure of controlled substance analogs and the effects that the controlled substance analogs have on the central nervous system of persons who use them and whether these controlled substance analogs have the same or greater effect on a person's central nervous system that a controlled substance would have.

{¶ 50} Appellant presented the expert testimony of Joseph P. Bono, "a forensic science consultant in the area of forensic science laboratory operations and the issues associated with purported controlled substance analogs." Bono holds a bachelor's degree in chemistry and a master's degree in political science. Bono stated that the term "substantially

similar" does not have an objective scientific definition; that as a scientist, he could not give an opinion on whether two chemicals are substantially similar because there is no objective standard; and that he was not aware of any scientific test to determine whether two chemicals are substantially similar. Bono acknowledged during cross-examination that in 1991, he wrote a chapter for a chemistry book in which he used 2-D models to show the different structures for heroin, cocaine, and methamphetamine. However, Bono explained that that he changed his mind about the efficacy of 2-D models in 2007, because his retirement from government work had "open[ed] [his] mind." However, Bono acknowledged that even though he has changed his mind about 2-D models, he still has used them in all of his reports since 2007.

{¶ 51} Appellant also presented the expert testimony of Dr. Robert Belloto, a forensic chemist, who testified that there is no scientific test for determining whether two substances are "substantially similar" and that a mathematical or statistical test needs to be created to quantify what constitutes substantial similarity. Dr. Belloto also testified that there is not a test for determining whether two substances will have similar pharmacological effects on persons who use them.

{¶ 52} As to appellant's argument that the term "substantially similar" has no commonly accepted definition, we note that courts have consistently determined that this term is to be defined by its plain, ordinary meaning. *See, e.g., United States v. Brown*, 279 F.Supp.2d 1238, 1240-1241 (S.D.Ala.2003) (since the federal controlled substance analogue act does not indicate the term "substantially similar" is to be defined as it is used scientifically, the words will be defined as they are used in everyday language); *United States v. Bays*, N.D.Tex. No. 3:13-CR-0357-B, 2014 WL 3764876, *3 (there is no indication that Congress intended for the words "substantially similar" in the federal controlled substance analogue act to have a specialized or scientific meaning, and therefore the words should be given their

ordinary meaning).

{¶ 53} As to appellant's argument that the method MVRCL uses to determine whether a controlled substance analog is substantially similar to a controlled substance is not generally accepted, we note that both Ehlers and Dr. Sprague testified that the visual comparison method, including the use of 2-D models, is generally accepted in the scientific community. This same conclusion has been reached by a number of federal courts. See, e.g., *United States v. Brown*, 415 F.3d 1257, 1267 (11th Cir.2005); *Bays* at *8. Dr. Sprague also testified that his methodology for determining whether a controlled substance analog has the same or greater effect on a user's central nervous system that a controlled substance would have has been peer reviewed and is generally accepted in the scientific community.

{¶ 54} As to appellant's argument that there was insufficient evidence to prove that the controlled substance analogs have the same or greater effect on a user's central nervous system that a controlled substance would have, we note that Dr. Sprague testified that he considers the "binding" or "affinity" of the controlled substance analog to receptors in the brain and how this binding or affinity is measured by the "KI value[,] and that the lower the KI value a substance has, the more potent the substance is. Dr. Sprague testified that he uses the "KI value" to determine whether a controlled substance analog has the same or greater effect on a person's central nervous system that a controlled substance would have and that use of the "KI value" is generally accepted in the scientific community.

{¶ 55} Dr. Sprague also testified that research has been done on the substances at issue in this case to compare the level of "affinity," and that the levels in question have been verified in studies on rodents. Dr. Sprague testified that this methodology is generally accepted in the scientific community and that the results of the studies have been presented in peer-reviewed publications. A number of federal courts have upheld the use of these methods in determining the physiological effects of controlled substance analogues. See,

e.g., *Bays* at *8, and the cases cited therein, including *United States v. McFadden*, W.D.Va. No. 3:12CR00009, 2013 WL 8339005, at *5 (May 10, 2013) (expert testimony based on animal studies was properly admitted in a controlled substance analogue case and any shortcomings identified by the defendant went to the weight to be given the evidence rather than its admissibility), *aff'd*, 753 F.3d 432 (4th Cir.).

{¶ 56} In light of the foregoing, the state presented sufficient evidence to show that the expert testimony it intended to introduce at appellant's trial met the standards set forth in Evid.R. 702 and *Daubert*, including that the testimony was "reliable" under Evid.R. 702(C), and therefore, the trial court did not err in refusing appellant's request to prohibit the state from presenting the expert testimony at trial.

{¶ 57} Judgment affirmed.

S. POWELL and RINGLAND, JJ., concur.