IN THE COURT OF APPEALS OF THE
STATE OF OREGON

STATE OF OREGON,
Plaintiff-Respondent,
v.
KEVIN MICHAEL RAY,
Defendant-Appellant.

Deschutes County Circuit Court
17CR76930; A173399

Beth M. Bagley, Judge.

Argued and submitted January 24, 2022.

Brett J. Allin, Deputy Public Defender, argued the cause for appellant. Also on the briefs was Ernest G. Lannet, Chief Defender, Criminal Appellate Section, Office of Public Defense Services.

Joanna L. Jenkins, Assistant Attorney General, argued the cause for respondent. Also on the brief were Ellen F. Rosenblum, Attorney General, and Benjamin Gutman, Solicitor General.

Before Tookey, Presiding Judge, and Aoyagi, Judge, and Sercombe, Senior Judge.

AOYAGI, J.

Affirmed.

AOYAGI, J.

Defendant was convicted of driving under the influence of intoxicants (DUII), ORS 813.010, after he blew .08 on a breath test. *See* ORS 813.010(1)(a) (driving a vehicle with "0.08 percent or more by weight of alcohol in the blood * * * as shown by chemical analysis of the breath or blood" constitutes DUII). Defendant contends that the trial court erred by allowing a forensic scientist to testify regarding "validation tests" used to determine the accuracy of the breath-testing instrument. In defendant's view, that evidence was irrelevant under OEC 401, not established to be scientifically valid under OEC 702, and unfairly prejudicial under OEC 403. For the following reasons, we affirm.

FACTS

Defendant was arrested for DUII. At the jail, he took a breath test on an Intoxilyzer 8000 instrument. The test showed a blood-alcohol content (BAC) of .08 percent. Specifically, defendant's first sample came back as .084, his second sample came back as .081, and the instrument automatically threw out the higher result (.084) and rounded down the lower result (.081) to the hundredth place (.08).

Defendant was charged with DUII and proceeded to a jury trial. We limit our discussion of the trial to facts pertinent to the issue on appeal.

At trial, during cross-examination of the arresting officer who conducted the breath test, defense counsel pursued a line of questioning to the effect that defendant's true BAC might have been less than .08 percent when he took the breath test. Defense counsel reasoned—as shown through his questioning—that the control sample that the instrument ran along with defendant's samples came back .003 lower than expected (.082 instead of .085), that .003 was therefore the "margin of error," that defendant's second sample was .081, and that it was therefore possible that defendant's true BAC was .078. The officer declined to endorse defense counsel's characterization of .003 as the machine's "margin of error," stating that she did not know how that was determined. However, she agreed with defense counsel's math: .081 minus .003 equals .078; the machine would round .078 down to .07; and .07 is less than .08.

The state subsequently called Jackson to testify. Jackson is a forensic scientist at the Oregon State Police's crime lab. He has both a bachelor's degree and a Ph.D. in chemistry, did a post-doctoral fellowship, and has worked for the Oregon State Police for 12 years. As a result of his police training, Jackson is allowed to perform certifications and assessments of field instruments, including the Intoxilyzer 8000. The Intoxilyzer 8000 uses infrared spectrophotometry to identify ethanol in a breath sample. Before deployment into the field, the instrument is calibrated and goes through a verification check. Once deployed, it must be certified every 90 days, and it is subject to voluntary assessment every 30 days. Jackson described the certification and assessment processes. He also described how the Intoxilyzer 8000 works, walking through what occurs inside the instrument when breath samples are taken, including the testing of a control sample of .085 percent certified ethanol.

Jackson then discussed validation tests—sometimes called blood/breath correlation studies—that must be done before an Intoxilyzer 8000 is released into the field and that his lab periodically conducts to ensure that the instruments are still reading correctly. To conduct these tests, volunteers come to the crime lab with empty stomachs. They drink alcohol for an hour, take a preliminary breath test for safety purposes, are given some food, drink alcohol for another hour, are observed for 15 minutes, take a breath test followed by a blood test, wait an hour, and then take another breath test followed by a blood test. In the validation tests that his lab performed on 188 volunteers between June 2006 and June 2019, there were two instances of the breath result being .002 percent higher than the blood result; one incident of the breath and blood results being identical; and 185 instances of the blood result being higher than the breath result. On average, the Intoxilyzer 8000 underestimated true BAC by approximately .02 percent, which is consistent with its design, in that certain aspects of the testing process are designed to produce a conservative estimate of BAC.

Jackson's testimony regarding the validation test results was admitted over defendant's objection. When Jackson was first asked about the results, defense counsel objected and said, "Your Honor, these studies are not scientifically validated. I believe there's no peer review. We may have to do a 104 hearing, if necessary." At that point, the prosecutor asked Jackson about the validity of the described methodology. Jackson testified that it is a valid way to test the accuracy of the Intoxilyzer 8000, because his lab uses procedures that are "commonly found in the literature" and that are the "predominant method" used to verify instrument accuracy. As for lack of peer review, Jackson explained that he cannot publish as they are not doing anything "new or novel." Based on Jackson's testimony, the prosecutor argued that the methodology used was "accepted in the field" and "also common sense." Asked whether she had anything further to add to her objection, defense counsel said, "I would just add that there's a problem with sample size, too. It looks like these aren't the normal size of studies that would be done and conducted that would actually fall into those peer-reviewed and verified validated studies. It's not the same size." The court overruled defendant's objection to the testimony, noting that defense counsel could inquire about the sample size on cross-examination.

Ultimately, the jury found defendant guilty of DUII.

ANALYSIS

On appeal of his DUII conviction, defendant raises a single assignment of error. He contends that the trial court erred by admitting Jackson's testimony regarding his lab's blood/breath validation studies on the Intoxilyzer 8000, because that testimony was irrelevant under OEC 401, not established to be scientifically valid under OEC 702, and unfairly prejudicial under OEC 403. He further contends that the error was not harmless, because Jackson's testimony was "highly persuasive" in rebutting defendant's argument that his true BAC was less than .08 percent at the time of the breath test.

In response, the state asserts that defendant's relevancy and OEC 403 arguments are unpreserved; that they would fail on the merits in any event; and that the trial court correctly denied defendant's OEC 702 objection, because there was sufficient evidence of scientific validity.

Scientific evidence must satisfy three evidentiary rules to be admissible: "It must be relevant, OEC 401; it must possess sufficient indicia of scientific validity and be helpful to the jury, OEC 702; and its prejudicial effect must not outweigh its probative value, OEC 403." *State v. Southard*, 347 Or 127, 133, 218 P3d 104 (2009). We review relevancy rulings for errors of law. *State v. Titus*, 328 Or 475, 481, 982 P2d 1133 (1999). The same is true of rulings on scientific validity under OEC 702. *Jennings v. Baxter Healthcare Corp.*, 331 Or 285, 301, 14 P3d 596 (2000). We review OEC 403 balancing for abuse of discretion. *State v. Shaw*, 338 Or 586, 615, 113 P3d 898 (2005).

Regarding relevancy, defendant did not preserve a claim of error under OEC 702. We disagree with defendant's assertion that objecting to the scientific validity of the evidence and suggesting that a "104 hearing"[1] might be necessary was enough to preserve all possible challenges to the admission of scientific evidence. But, even if we were to agree with defendant that the claim of error was adequately preserved,[2] defendant's argument fails on the merits. Evidence regarding the reliability of the Intoxilyzer 8000, including its margins of error in validation testing, might not normally be relevant in a DUII case. However, defendant pointedly suggested to the jury that the instrument had a .003 margin of error in both directions, which could have created reasonable doubt as to the reliability of defendant's .08 breath-test result. That made Jackson's testimony relevant to the state's *per se* theory of DUII. In so concluding, we emphasize that defendant's breath-test result was over the legal limit and that the state offered Jackson's testimony only to establish that the .08 test result was reliable to establish a .08 BAC. This would be an entirely different

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[1] OEC 104 provides for hearings on "preliminary matters," including questions concerning witness qualifications, the existence of a privilege, or the admissibility of evidence. It is not specific to scientific evidence or to particular admissibility issues.

[2] Defendant firmly maintains that he adequately preserved all of his arguments. He does not request discretionary plain-error review, and so we do not consider plain error. *See* ORAP 5.45(1) (allowing for discretionary review of "a plain error" where the claim of error was not preserved in the trial court); *State v. Ardizzone*, 270 Or App 666, 673, 349 P3d 597, *rev den*, 358 Or 145 (2015) ("Defendant does not request plain error review in this case, and we therefore do not undertake that analysis.").

case if defendant's breath-test result had been *under* the legal limit and the state had offered Jackson's testimony to prove that defendant's actual BAC was *higher* than the breath-test result.

As for scientific validity, that claim of error is preserved, but it fails on the merits. Scientific evidence "possesses an unusually high degree of persuasive power." *State v. O'Key*, 321 Or 285, 291, 899 P2d 663 (1995). As such, OEC 702 gives the trial court a gatekeeping function to ensure that the persuasive appeal of such evidence is legitimate. *Id.* Before admitting such evidence, the court must determine whether it is scientifically valid. *Id.* at 292. The goal is to keep out "bad science." *Marcum v. Adventist Health System/West*, 345 Or 237, 244, 193 P3d 1 (2008). In performing its gatekeeping role under OEC 702, the court is to screen "proffered scientific testimony to determine whether it is sufficiently valid, as a matter of science, to legitimately assist the trier of fact" and exclude "bad science" that would be confusing, misleading, erroneous, prejudicial, or useless. *Id.* (internal quotation marks omitted). At the same time, importantly, weaknesses in a given scientific study or errors in an expert's analysis do not render scientific evidence invalid. *Thoens v. Safeco Ins. Co. of Oregon*, 272 Or App 512, 537, 356 P3d 91 (2015). They go to the weight of the evidence, not whether the factfinder should be allowed to hear it in the first place. *Id.*

Here, Jackson's testimony was sufficient to establish the scientific validity of the Intoxilyzer 8000 validation test results for the purpose for which they were offered.[3] Any weaknesses in the testing methodology, such as the relatively small sample size, could be explored on cross-examination (as the trial court noted) and might cause the jury to give

[3] On appeal, defendant argues that Jackson's testimony should have been excluded under OEC 702 as "incompatib[le] with the statutory scheme governing DUII." That argument is founded on defendant's breath-test result being presumptively scientifically valid under the statutory scheme, such that the state was not required to establish its scientific validity at trial. *See State v. Helgeson*, 220 Or App 285, 293, 185 P3d 545 (2008) (discussing the legislative presumption of scientific validity for blood and breath tests to determine BAC). That might be persuasive as a relevancy argument, if defendant had not challenged the accuracy of his breath-test result, but he did challenge the accuracy of his breath-test result.

the evidence less weight. The same is true of the various attacks on the methodology that defendant makes for the first time in his reply brief on appeal. But the evidence was not "bad science" of the sort that had to be excluded under OEC 702. The trial court did not err in overruling defendant's OEC 702 objection.

The final issue is whether the trial court erred by not excluding Jackson's testimony as unfairly prejudicial. *See* OEC 403 (allowing relevant evidence to be excluded "if its probative value is substantially outweighed by the danger of unfair prejudice"); *State v. Mayfield*, 302 Or 631, 645, 733 P2d 438 (1987) (describing procedure for OEC 403 balancing). As with defendant's relevancy argument, we are unpersuaded that this issue is preserved, but, even if we were to agree with defendant on preservation, defendant's argument fails on the merits.

We have already explained why the validation test results were relevant, contrary to defendant's view that they had no probative value. As for unfair prejudice, the fact that the evidence might have persuaded the jury that defendant's .08 breath-test result was reliable is not "unfair prejudice" within the meaning of OEC 403. And we are unpersuaded that the jury would have used the evidence for some other, improper purpose that would have been unfairly prejudicial.

We disagree with defendant that this case is controlled by *State v. Hillier*, 132 Or App 40, 887 P2d 845 (1994). On appeal from a DUII conviction, the defendant in *Hillier* argued that it was error to admit into evidence, over his objection, a single exhibit consisting of "certified copies of the Oregon Administrative Rules 257-30-005 through 257-30-100, pertaining to alcohol breath testing, along with documentation apparently relating to the promulgation of those rules," including "memoranda from the Oregon State Police, results of studies measuring the accuracy of various Breathalyzers and Intoxilyzers, a letter from a drunk driving committee and virtually illegible data sheets concerning the Model 4011-A Intoxilyzer and the Stephenson Model 900 Breathalyzer." *Id.* at 42. We agreed that it was error to admit the exhibit. *Id.* Documents concerning machines other than the model used to test the defendant's breath were irrelevant. *Id*. As for documents concerning the Model 4011-A Intoxilyzer that was used, we concluded that those too should have been excluded, because, even if relevant, "they were highly prejudicial and likely to confuse the jury." *Id.* at 43. Those documents included ten pages of "illegible and indecipherable" data, letters from lay people to the legislature referencing that the Intoxilyzer produces lower BAC measurements than blood testing, and "test results" indicating that the Intoxilyzer produces lower BAC measurements than blood testing. *Id*.

Defendant argues that this case is "indistinguishable" from *Hillier* and our exclusion of the "test results" in that case. We disagree. *Hillier* is distinguishable from this case in several regards. First, beyond referring to them as "results of studies" and "test results," we gave no description of the documents at issue in *Hillier*, which limits *Hillier*'s value as precedent, because study/test results may vary dramatically in terms of relevance, reliability, risk of unfair prejudice, risk of confusion, and so on. Second, the study/test results in *Hillier* were offered as part of a stand-alone exhibit, without context or supporting testimony, whereas Jackson testified to his methodology and was available for questions and cross-examination. *See id*. at 42 (the *Hillier* defendant objected to the documents as "irrelevant, hearsay and highly prejudicial" and argued that "admitting the results of scientific studies violated his right to confrontation, because he had no way of cross-examining those who performed the tests or of attacking the validity of the results"). Third, in *Hillier*, unlike here, there is no indication that the reliability of the defendant's breath-test result was put into question. *Hillier* does not even mention the defendant's breath-test result or say whether he was tried for DUII on a *per se* theory, an impairment theory, or both. *See id.* at 42-43.

In sum, we reject defendant's assignment of error and affirm the judgment of conviction.

Affirmed.