IN THE SUPREME COURT OF THE STATE OF CALIFORNIA

PEOPLE OF THE STATE OF CALIFORNIA Plaintiff/Appellant, v. TERRY VANGELDER, Defendant/Respondent.	)	**S195423**

RESPONDENT'S ANSWER BRIEF ON THE MERITS

Fourth Appellate District, Div. One, No. D059012
San Diego Superior Court App. Div. No. CA221258
San Diego Super. Ct. No. M039138, Hon. Gregory W. Pollack, Judge

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INTRODUCTION

The case involves a conviction of Mr. Vangelder and his appeal of one count of Vehicle Code section 23152, subdivision (b), driving with a .08 blood alcohol. Mr. Vangelder's conviction was reversed by the Court of Appeal because the trial court erroneously excluded expert testimony that breath tests are unreliable measurements of alcohol in the breath. Appellant, City of San Diego, petitioned for review which was granted.

The question presented by the City centers on the propriety of the trial court's order excluding the expert's testimony. The trial court's ruling was emphatic: "No questions [are to be asked] to this expert, which will solicit any testimony by him to be a fact that the breath sample that was measured here was not representative other than if it had contained mouth-alcohol." (2RT 365.)

Appellant's argument before this Court is reminiscent of the classic Lewis Carroll quotation regarding the *ipse dixit* assignment of meaning to words.

> "'When I use a word,' Humpty Dumpty said, in rather a scornful tone, 'it means just what I choose it to mean neither

> more nor less.' 'The question is,' said Alice, 'whether you can make words mean so many different things.' 'The question is,' said Humpty Dumpty, 'which is to be master that's all.'"

(Carroll, Through the Looking Glass, ch. 6, as quoted in Cooper v. Swoap (1974) 11 Cal.3d 856, 872.)

This Court has stated the accepted meaning of the partition ratio:

> "[it] means the amount of alcohol in 2,100 milliliters of breath is considered equivalent to the amount of alcohol in 1 milliliter of blood. It is undisputed, however, that partition ratios can vary widely, both in the general population and within an individual." (People v. McNeal (2009) 46 Cal.4th 1183, 1188.)

A partition ratio defense posits that the ratio is not uniform within an individual and/or also varies within the general population. That is, the defense addresses: "[t]he conversion factor, known as a 'partition ratio,' [which] reflects *the relationship between alcohol measured in a person's breath and alcohol in the blood.*" (Ibid; italics added.)

Appellant would assign to the term "partition ratio" broad, new, and unsupported meanings. It is broad enough to cover and preclude the proffered expert testimony; it is new and unsupported because it flies in the face of the accepted definition of the term. To appellant, if an expert says that a breath alcohol measurement is unreliable, that is prohibited partition ratio evidence in "disguise." (Appellant's Brief on the Merits [hereafter cited as BOM], p. 6.) Not so.

Appellant goes further. Here, the expert would testify that the breath test does not measure deep lung air as mandated by state regulation. Appellant informs us that this too is to be excluded under the new, all-inclusive "partition ratio" exclusionary rule. Appellant's etymology is as

meritless as its legal assertions.

Appellant also frames the issue before the Court erroneously.[1] (BOM, p. 1.) Appellant asserts the question before the Court is whether the expert's proffered testimony violated People v. Bransford (1994) 8 Cal.4th 885, that partition ratio evidence is irrelevant to a Vehicle Code section 23152, subdivision (b), prosecution. That is, the expert should not be allowed to testify that lung air is affected by physiological factors in the airway that can result in an unreliable breath test. That is not what Bransford holds.

The actual question is whether an expert's proffered testimony should have been excluded from jury consideration when: (1) it states that, based upon the expert's published research over the years, breath tests do not reliably measure "essentially alveolar air" because the breath is saturated with alcohol from the lungs' airways by the time it reaches the deep lung; and, in addition, (2) that breath testing is also unreliable because the breath alcohol measurement fluctuates, given the source of alcohol being the entire lung airway and due to various physiological factors such as the manner of breathing, body and breath temperature, and red blood cell numbers.

Mr. Vangelder did not call his expert to testify either that individuals vary generally in their partition coefficient or that his specific partition ratio was below the norm. Rather, he called Dr. Hlastala to testify that the breath alcohol concentration taken from the sample of exhaled breath has proven to be an unreliable estimator of the alcohol concentration in the

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[1] "[A]nswers are not obtained by putting the wrong question and thereby begging the real one." (Priebe & Sons, Inc. v. United States (1947) 332 U.S. 407, 420 [Frankfurter dissenting].)

breath because, among other factors, none of that measurement derives from the alveolar sacs deep in the lungs and the measured air is highly affected by breathing patterns.

Dr. Hlastala's testimony had nothing to do with partition ratio.[2] In fact, one could assume *arguendo* that every human being who is breath tested has the identical partition coefficient. Dr. Hlastala's testimony about the inaccurate measurement of breath alcohol concentration is unaffected and completely independent of that fact. He was not addressing the partition ratio and its relationship between blood and breath: "I'm not talking about comparing it [breath] to blood." (2RT 357.) As the Court of Appeal found, this evidence was a "scientific challenge to the data obtained by breath test machines, *even before the partition ratio is applied* to convert such breath test data to blood-alcohol concentration by weight." (Opn., p. 4, italics added.)[3]

Dr. Hlastala's credentials and science were not challenged at trial.

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[2] As will be discussed in detail, *infra*, appellant's differing characterizations of Dr. Hlastala's testimony are wrong. It says his "premise that testing samples of *essentially alveolar air*, which are affected to some degree by the exit from the body, produces unreliable results." (BOM, p. 13.) The doctor never said alveolar air was captured for measurement. The City also says Dr. Hlastala's testimony would have been that pure alveolar air is not being tested. (BOM, p. 12: "breath-alcohol samples have never been pure alveolar samples.") Again, the doctor never said that the breath sample lacked "pure" alveolar air; he said it lacked *any* alveolar air. Finally, appellant contends his testimony was purportedly "that the result of the breath test does not accurately reflect the subject's blood alcohol." (BOM, p. 5.) No. It was that the breath test does not reflect a reliable *breath* alcohol measurement.

[3] The Court of Appeal also noted the additional relevance to the testimony: "if the air sample taken by the EC/IR breath test device is defective or inaccurate, how can the blood-alcohol level be correctly calculated, even with the use of a standardized partition ratio?" (Opn., p. 19.)

Neither the prosecution nor the trial court took issue with his experience, research, or the scientific basis for his opinions. As the prosecutor told the court, "he's obviously very qualified, I don't have any argument with the science." (2RT 364.) As the Court of Appeal found, his testimony went "to the weight to be accorded the testing results." (Opn., p. 25.)

The trial court's exclusionary error violated Mr. Vangelder's 14th Amendment due process right to produce relevant evidence[4] and to confront the evidence brought against him. (Washington v. Texas (1967) 388 U.S. 14 [87 S.Ct. 1920; 18 L.Ed.2d 1019].) Here, given the marginal reading of .08 breath alcohol level and the heavy reliance by the prosecution on two forms of breath testing results (PAS and EC/IR), "... the issue affected by the ruling was critical.... An error that impairs the jury's determination of an issue that is both critical and closely balanced will rarely be harmless." (People v. McDonald (1984) 37 Cal.3d 351, 376.) The Court of Appeal was correct. The error was prejudicial and the conviction must be reversed.

STATEMENT OF FACTS

A. The Stop and Testing. The Court of Appeal recitation of the facts is correct. (Opn., pp. 5-11.) The City's statement that Sergeant Berg "was able to pull Respondent over after about six and a half miles" is somewhat misleading. The officer followed Mr. Vangelder that distance because he saw him speeding, but it was not a red light chase. As soon as Sergeant Berg turned on his patrol car's red lights, Mr. Vangelder "noticed because he slowed down real quick and pulled over." (1RT 100.) Mr. Vangelder was not stopped for lane weaving, but for excessive speed.

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[4] Also mandated under Evidence Code section 351 ("Except as provided by statute, all relevant evidence is admissible"), and the California Constitution, article I, section 28(f)(2), to the same effect.

(1RT 102.)

Sergeant Berg observed Mr. Vangelder's eyes to be "red and watery" which were "symptoms of possible intoxication." (1RT 107.) However, Berg had never taken a drug recognition expert (DRE) course (1RT 110), and he admitted that, at 3:00 a.m., this condition could be explained by a multitude of other factors. (1RT 130.) While suspicious, he did not form an opinion whether Mr. Vangelder was under the influence. (1RT 131-132.)

When Sergeant Berg turned the matter over to Officer Guzman, the latter had Mr. Vangelder perform Field Sobriety Tests during which he "exhibited little signs of any impairment, except for an occasional pause or sway." (Opn., p. 6.) Guzman also administered a "preliminary alcohol screen" (PAS) test. Regulations require the officer to wait fifteen minutes before giving the PAS test. This insures that the subject has not burped or vomited which can bring to the mouth alcohol which would inflate the test results. (1RT 148, 172-173.) Guzman did not follow this requirement. He arrived at the scene at 2:58 a.m. and conducted the PAS tests at 3:09 a.m. (2RT 252.) He thus waited a maximum of 9 or 10 minutes with Mr. Vangelder before administering the test.[5] Mr. Vangelder tested at .095 and .086 on the PAS tests. (1RT 199-200.) The PAS has a margin of error of .01. (1RT 144.)

Mr. Vangelder told the officer he had about three glasses of white zinfandel wine at dinner. His eyes were "red and glassy" (1RT 184) and he

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[5] The prosecutor told the jury: "There's no question that Officer Guzman didn't watch this man, didn't observe this man for a full 15 minutes...But the truth is that doesn't cut it with Title 17. The person is supposed to do it." (2RT 452.)

smelled of alcohol. (1RT 190.) However, he was cooperative, friendly, "[l]ooked normal...[and] like a very nice man." (1RT 191.)

At the police station, Mr. Vangelder agreed to take another breath test from an EC/IR (electrochromatograph/infrared) machine. The first of these tests was administered at 3:37 a.m. (2RT 263.) Mr. Vangelder tested at .08. A second test administered two minutes later had the same result. (1RT 207.)

Mr. Vangelder also chose to provide a blood sample which was taken at 3:52 a.m. (1RT 208, 2RT 301-302.) The blood test results were a .088 and .087. (2RT 296.) Based on the EC/IR breath results, Criminalist Ochoa estimated Mr. Vangelder's "alcohol level to be at a .09 at the time of driving," and that he would be impaired. (2RT 302, 304.) Ms. Ochoa also testified that when there is an .08 reading, given the ±.01 margin of error, "the true result at that time is somewhere between a .07 and .09." (2RT 316-317.)

FACTS RELATED TO THE EXPERT TESTIMONY

A. Dr. Hlastala's Qualifications and Proffered Testimony.

1. Dr. Hlastala's Credentials. Dr. Michael Hlastala is a professor at the University of Washington Department of Medicine, Department of Physiology and Biophysics, and a professor of Bioengineering. (2RT 322.) He became a full professor in 1982. He teaches, but his primary job is research. (Ibid.) He has a bachelor's degree in physics and a doctorate in physiology. (2RT 322-323.)

Dr. Hlastala serves on committees for the National Institute of Health, aids in the review of grant proposals and conducts peer review of scientific papers. (2RT 323-324.) He has been awarded a Guggenheim Fellowship and has studied abroad at the Medical Research Institute in

Germany for experimental medicine. (2RT 323.) He has over 400 publications, 174 of them peer-reviewed articles, and a textbook. (2RT 324.) The focus of his research has been the study of the physiology of the human body and specifically the study of alcohol and human physiology. (2RT 324.) This work includes study of "the way that alcohol is measured in testing procedures." (2RT 324.) Dr. Hlastala has testified as an expert witness on the effects of alcohol and breath testing issues in approximately 30 states. (2RT 325.)

The prosecutor stated he had no objection to Dr. Hlastala being deemed an expert, stating: "The court recognized there is a scientific basis....the doctor is not here as some sort of quack." (2RT 338.) "I'm not attacking the accuracy of his representation to the jury." (2RT 339.) "[H]e's obviously very qualified, I don't have any argument with the science." (2RT 364.) The trial court accepted him as an expert witness without objection. (RT 325.)

2. The Proffered Testimony and Hearing. Dr. Hlastala stated that the EC/IR breath test (as used in this case) is not scientifically accurate. (2RT 325.) He diagramed the lung to explain the process of how breath inhalation brings oxygen into the lungs for exchange to the blood where it is then metabolized and provides energy. (2RT 327.) The assumption of breath test machines is that they pick up essentially alveolar air at the bottom of the lungs and that the exhaled breath measured out of the mouth reflects the level of breath alcohol in the deep lungs. (RT 327.)

Dr. Hlastala testified that the expired air in a breath test is not deep lung air but rather is alcohol-laden breath from the entire airway regions of the lungs (the bronchia and trachea). Before an inhalation reaches the lung's alveolar sacs, the breath is already fully saturated with alcohol so that

no alveolar air is acquired:

> And we have, in the airway, a lot of mucus and water and that mucus lining in the airway plays an important role in protecting us from particles and things we inhale goes on to this mucus, then comes out to the mouth. And it mostly–it would get those things we swallow and goes into the digestive system. ¶ But if we have alcohol, there are little blood vessels that come along here, and these blood vessels, those are called "bronchial vessels." And so they bring alcohol so there's a lot of alcohol if you have alcohol in your bloodstream. Now, what happens is if we inhale and we pick up alcohol from this mucus and by the time we pick it up here, and by the time we get down to this air [alveolar] sac, it's already filled up and saturated. (2RT 328.)

At this point, Dr. Hlastala's jury testimony was stopped on objection by the prosecutor. There followed a lengthy argument about whether Dr. Hlastala, based on the above statement, was giving prohibited "partition ratio" testimony.[6] The trial court initially stated that it "doesn't matter how the alcohol gets into the breath. If there's a certain amount of alcohol per 210 liter[s] of breath, he's violated the law." (2RT 331.) The court thus assumed the Vehicle Code section 23152, subdivision (b), count [hereafter, the (b) count] reading was not rebuttable. (2RT 340, 341; *see* Opn., p. 18.)

The prosecutor argued to exclude Dr. Hlastala's opinion as prohibited partition ratio testimony: "It doesn't make any difference whether that blood or breath came, you know, if some of the alcohol came from the mucus or trachea." (2RT 334.) The trial court agreed that breath out the mouth was the only issue: "you measure the breath and whatever you have

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[6] This case was tried prior to the holding in People v. McNeal (2009) 46 Cal.4th 1183, 1200, which held that partition ratio evidence is relevant and admissible to defend against the generic DUI count. (Vehicle Code section 23152, subdivision (a).)

there. If it's above or below *as a matter of law*, that's in violation." (2RT 335; italics added.) The trial court repeated that the proffered testimony was partition ratio evidence. (Id. at 336.)

Defense counsel disagreed and noted that nothing Dr. Hlastala was saying had anything "to do with 2100 to 1 ... [and] nothing to do with blood." (2RT 336-337.) However, the trial court was intransigent that if Dr. Hlastala's testimony was to allowed: "the only conclusion that one can draw from that is the resulting blood-alcohol reading that spits out by the machine is overstated ... Because it will never understate. It will always overstate. Well, if we have a situation where these machines are constantly overstating and you're challenging it on that basis, you're really challenging it on what's the real partition ratio. But that's exactly the analyses we can't do." (2RT 342.)

During the proffer session, Dr. Hlastala testified the breath test is unreliable due to variance in breathing patterns. (2RT 349, 350-351.) Other factors that influence breath measurement accuracy are body and breath temperature and the number of red blood cells. (Ibid.)

These factors affect the breath value measured but are unrelated to the equilibrium process that is essential to the partition ratio. (2RT 350.) Dr. Hlastala denied he was making a camouflaged effort to challenge the partition ratio. Rather, his testimony related to "factors within the body such as breathing influence, how much alcohol comes out into the breath." (Id. at 350-351.) The inaccuracy is in "the variability and how the alcohol comes out of the mouth." (Id. at 351.) As Dr. Hlastala explained, this is "because the basic assumption that all of the [breath testing] manufacturers have used is that the breath that it measured is directly related to water in the lungs, which is directly related to what's in the blood. And in recent

years, we've learned that, in fact, that's not the case." (2RT 352-353.) "I'm not talking about the partition ratio. I'm talking about factors that influence the breath, breath-alcohol." (2RT 357.) "I'm not talking about comparing it to blood." (Ibid.) He stated the variability of test results is endemic to an indirect test like a breath measurement. The "more remote [the test], the more variable." (2RT 354.)

At the conclusion of the proffer session, the trial court held to its initial ruling that the (b) count "criminalizes ... a certain breath level" (2RT 360) and that Dr. Hlastala's testimony "runs afoul of the prohibition against partition-ratio evidence." (2RT 362.) The court excluded all questions, testimony and argument on the issue: "No questions to this expert, which will solicit any testimony by him to be a fact that the breath sample that was measured here was not representative other than if it had contained mouth-alcohol." (2RT 365.) The court instructed counsel not to argue the testimony that the breath machine is not scientifically valid in its breath measurement. (2RT 364-365.)

ARGUMENT

I. EXCLUSION OF DR. HLASTALA'S TESTIMONY AS BEING PARTITION RATIO EVIDENCE WAS CLEARLY ERRONEOUS AND DENIED RESPONDENT HIS FOURTEENTH AMENDMENT RIGHTS TO CONFRONT THE EVIDENCE AGAINST HIM AND HIS DUE PROCESS RIGHT TO PRODUCE EVIDENCE IN HIS FAVOR.

A. Constitutional Standards. The complete exclusion of the defense here was not a dispute over a minor evidentiary issue, but constituted a due process denial of a fair trial as well as denying the federal constitutional right to compulsory process. (Washington v. Texas, *supra* at 388 U.S. 14; Holmes v. South Carolina (2006) 547 U.S. 319 [126 S.Ct. 1727, 164 L.Ed.2d 503] [state statute prohibited putting on a defense of third party

culpability when the prosecution case was "strong" violated the Sixth Amendment right to put on a defense].)

The U.S. Constitution guarantees criminal defendants "'a meaningful opportunity to present a complete defense.'" (Holmes, *supra* 547 U.S. at 324, *quoting* Crane v. Kentucky (1986) 476 U.S. 683, 690 [106 S.Ct. 2142, 90 L.Ed.2d 636]; *accord* California v. Trombetta (1984) 467 U.S. 479, 485 [104 S.Ct. 2528, 81 L.Ed. 2d 413].)

As this Court has stated, "[T]he constitutional rights to counsel and to present a defense in a criminal case are among the most sacred and sensitive of our civil rights." (Magee v. Superior Court (1973) 8 Cal.3d 949, 954; *accord* In re Martin (1987) 44 Cal.3d 1, 29-31.)

Relevant California statutes also authorize defense evidence proffered to counter that evidence produced by the prosecution. Under Vehicle Code section 23610, subdivision (c), presumptions about chemical test results established by other subdivisions in the section "shall not be construed as limiting the introduction of any other competent evidence bearing upon the question of whether the person ingested any alcoholic beverage or was under the influence of an alcoholic beverage at the time of the alleged offense." (*See also* Pen. Code section1020: "All matters of fact tending to establish a defense other than specified in [this section], may be given in evidence under the plea of not guilty.")

B. Standard of Review. When relevant testimony is excluded based on an erroneous understanding of the law, it constitutes an abuse of discretion. "[T]he trial court seemed to assume that the .08 breath test result could not be rebutted in any fashion...." (Opn., p. 18; *see* 2RT 340, 341.) That assumption of law was erroneous and misinformed the trial court when it made its exclusionary ruling. (*See* People v. Soojian (2010)

190 Cal.App.4th 491, 521 [misapplication of law is an abuse of discretion].) Further, the court's misapplication of the facts in deeming the proffer as nothing more than partition ratio evidence was also an abuse. (People v. Surplice (1962) 203 Cal.App.2d 784, 791 ["To exercise the power of judicial discretion all the material facts in evidence must be both known and considered, together also with the legal principles essential to an informed, intelligent and just decision"].)

The Court of Appeal used an abuse of discretion standard and found the evidentiary error prejudicial under People v. Watson, *supra* 46 Cal.2d 836. (Opn., pp, 13-14, 26.) While Mr. Vangelder agrees with this assessment, given that the exclusion order was to the entire line of defense, it also violated his federal constitutional rights to produce a defense and confront the prosecution's case. As discussed below in Argument II, this error requires the prosecution to prove beyond a reasonable doubt that the error had no impact on the verdict.

C. Misstating the Proffer. Appellant's summary argument states that the defense "sought to introduce expert testimony that the result of the breath test does not accurately reflect the subject's *blood alcohol.*" (BOM, p. 5, italics added.) Not so. Dr. Hlastala's testimony was that the breath test does not reliably measure *breath alcohol.* (2RT 352.) That is the relevant issue under the (b) count. That offense concerns only the measurement of alcohol in the breath as distinct from blood alcohol. (*See* People v. McNeal (2009) 46 Cal.4th 1183, 1196 [the statute defines the offense based on the presence of a prohibited level of alcohol in the breath].)

Appellant asserts Dr. Hlastala's proffer was "disguised" prohibited partition ratio evidence. (BOM, p. 6.) Dr. Hlastala is an expert who has studied breath alcohol physiology for decades and has testified in 30 state

courts.[7] As he demonstrated during the proffer session, he understood the difference between the legal construct of partition ratio and the subject matter of his testimony. He repeatedly denied he was addressing partition ratio. (E.g., 2RT 357.) Nothing he proffered addressed that issue.

D. The "Black Box" Theme Does Not Address the Issue Presented.

Appellant argues that Dr. Hlastala must be wrong because breath testing has been proven accurate. Appellant asserts that "black box" testing[8] assertedly provides verification of the breath measurements when compared to blood measurements. (BOM, p. 8.) No such evidence was presented below to dispute Dr. Hlastala's proffer nor was this argument even made. In fact, appellant told the trial court it had no dispute with Dr. Hlastala's science. (2RT 364.)

Certainly, nothing precludes the prosecution from presenting such evidence to a jury. But mislabeling the proffered evidence as something it is not (*i.e.*, partition ratio) to exclude the defense is an improper means of preventing a defendant from confronting the evidence against him and presenting his defense. A jury can make its decision best when presented all relevant evidence. "To the extent possible, jurors must be *told* the truth if they are to *find* the truth." (People v. Harris (1998) 60 Cal.App.4th 727, 733

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[7] As appellant notes, he testified as an expert witness in New Jersey v. Downie (1989) 117 N.J. 450, 454. *See also* Starr v. State (La.App. 2011) 70 So.3d 128, 138 (testifying for the Louisiana Department of Transportation and Development); Seattle v. Personeus (Wash. Ct. App. 1991) 63 Wn.App. 461, 465 (reversing conviction due to erroneous exclusion of Dr. Hlastala's testimony regarding the rate of "burn-off" of alcohol.)

[8] A black box is a "usually complicated electronic device whose internal mechanism is usually hidden from or mysterious to the user; broadly: anything that has mysterious or unknown internal functions or mechanisms." (*See* http://www.merriam-webster.com/dictionary/black%20box.)

[italics in original].) Dr. Hlastala's testimony was surely relevant to the accuracy of the breath measurements and appellant's "black box" verification evidence, not presented below, cannot stand to block admission of his testimony.

Appellant cites in support of its "black box" validation cases which are hardly impressive. In People v. Ireland (1995) 33 Cal.App.4th 680, 686, the opinion briefly notes that a prosecution witness testified generally to correlation studies without citation to them and without case discussion. The entirety of the testimony noted in the opinion is: "Bergado explained that the 2,100:1 breath-to-blood conversion ratio is determined from correlation studies wherein blood samples drawn from an individual's arm are compared to breath samples taken from that individual." (Ibid.) This brief description of testimony hardly makes appellant's case for validation.

Also cited at BOM, p. 8 is State v. Hanks (Vt. 2001) 172 Vt. 93, 95, which does not discuss supportive validation studies. There, the court reversed a conviction because the trial court refused to allow defense counsel to cross-examine the state chemist concerning the partition ratio in a generic DUI case, something allowed in this state under McNeal, *supra,* at 46 Cal.4th 1200.

Unattributed statements on page 8 of the BOM about "black box" validation demonstrate a problem with appellant's case. Appellant challenged neither Dr. Hlastala as a qualified expert (to the contrary, they said he was), nor his science (they said there was no dispute there). (2RT 364.) The sole argument below was that his testimony should be characterized as prohibited partition ratio testimony. Appellant cannot now bring to this Court arguments to contest Dr. Hlastala's testimony that breath testing is inaccurate based on a record it did not make below. An objection

to scientific evidence is waived unless raised in the trial court (People v. Clark (1993) 5 Cal.4th 950, 1018; People v. Kaurish (1990) 52 Cal.3d 648, 688.)

E. Any Air Will Not Do. Despite its own statements that the partition ratio focuses on the assumption of sampling alveolar air in breath testing,[9] appellant asserts, again without supportive citation, that breath from the upper lung region would also be subject to partition ratio. (BOM, p. 17: "to the extent it [upper air breath alcohol] causes any effect on a breath sample, that effect is incorporated in the conversion from a breath alcohol sample to a breath alcohol result by breath machines which incorporate the 2,100 to 1 conversion factor that the Legislature set"].)

In fact, the opposite is true. Title 17 requires "essentially alveolar" air be tested. There is a reason for this. Under Henry's Law, the exchange from pulmonary circulation to air in the alveolus is presumed to behave similarly to the exchange across a blood/air surface. But in the upper airways, there is nothing approaching a "closed container" or equilibrium upon which the partition ratio formulation is based. If air is not essentially alveolar and the breath alcohol emanates entirely from the upper regions of the lung, then, as Dr. Hlastala testified, the measurement varies according to the amount of breath exhaled, among other factors. (2RT 349, 350.)

Given the lack of a record supporting appellant's black box verification or that partition ratio has anything to do with Dr. Hlastala's

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[9] Appellant recognizes that the ratio is specific to the alveolar exchange. "It is in this area that the scientific principle of Henry's Law is applied to calculate blood alcohol readings based upon the ratio that quantifies the concentration of alcohol in the blood relative to the concentration of alcohol in the alveolar space." (BOM, p. 7, citing People v. McNeal (2009) 46 Cal.4th 1183.)

proffer, appellant's contentions should be rejected. Under Rule 8.528(b), Rules of Court, the case should be dismissed as improvidently based on appellant's failure to make the record that supports the legal issue it now wishes to argue to this Court.

F. Turning Title 17 on its Head. Appellant attempts to define the regulatory requirement of "essentially[10] alveolar air" to mean all lung air from whatever source. (BOM, p. 17.) The controlling regulations say quite the opposite. Title 17 of the California Code of Regulations [CCR] section 1219.3 states:

> *A breath sample shall be expired breath which is essentially alveolar in composition.* The quantity of the breath sample shall be established by direct volumetric measurement. The breath sample shall be collected only after the subject has been under continuous observation for at least fifteen minutes prior to collection of the breath sample, during which time the subject must not have ingested alcoholic beverages or other fluids, regurgitated, vomited, eaten, or smoked. (Italics added.)

Title 17 CCR § 1220.4(f) also states:

> A breath alcohol concentration shall be converted to an equivalent blood alcohol concentration by a calculation based on the relationship: the amount of alcohol in 2,100 milliliters of *alveolar breath* is equivalent to the amount of alcohol in 1 milliliter of blood. (Italics added.)

Further, breath alcohol results are to be stated based on the alveolar air sampling. (*See* 17 CCR § 1221.5: "Expression of Analytical Results: Results of breath alcohol analysis shall be expressed as set forth in Section

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[10] The word "essentially" means "inherently" or "constituting essence" or "of the utmost importance," "basic, indispensable, necessary." (*See* http://www.merriam-webster.com/dictionary/essential.)

1220.4.") There is thus no support for the City contention that a breath test that simply measures generalized lung air out the mouth complies with the law. Quite the opposite is true.

Next, appellant claims Dr. Hlastala's testimony should not have been allowed because he would have testified that *pure* alveolar air is not being tested. (BOM, p. 12: "breath-alcohol samples have never been pure alveolar samples.") The defense proffer was quite the opposite. It was not that breath machines must measure "purely alveolar air" and failed to do so.[11] As the Opinion states at pages 21-22, Dr. Hlastala's testimony was that the breath machines get essentially ***no*** alveolar air to measure out the mouth because the air is fully saturated with alcohol by the time it reaches the deep lung area. (2RT 328.)

This fact alone is a relevant basis for admission of the testimony given the regulatory requirements that "essentially alveolar" air be sampled, measured and expressed under the relevant CCRs. (*See* People v. Williams (2002) 28 Cal.4th 408, 414, 415-416 [non-compliance with CCR regulations in administering a breath test constitutes relevant evidence which a defendant may put before the jury because the scientific standards behind breath test accuracy are premised on the regulations embodied in Title 17]; *accord* People v. Adams (1976) 59 Cal.App.3d 559, 567.)[12]

But appellant contends, without evidentiary support, that "breath-alcohol samples from their inception have always been essentially alveolar

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[11] As also contended in the appellant's Petition for Review, p. 1.

[12] As stated in an Attorney General Opinion, a California peace officer may not lawfully use breath testing devices unless the equipment and procedures used comply with regulations of State Department of Health Services. (Opn. # 88-1102, 72 Ops.Cal.Atty.Gen. 226 [Oct. 26, 1989].)

samples...." (BOM, p. 12.) Conceding that inhalation/exhalation of air will pick up alcohol from the airways, appellant dismisses this phenomena because "any affect from such blood vessels occurs in all breath testing." (Id. at pp. 13, 16.) The support for this argument quickly relates back to black-box verification by relying on the "accuracy and consistency of the breath test results...when correlated with blood test results." (Id. at 13.) The argument appears to be that "black box" testing shows breath testing as an accurate correlate to blood testing;[13] therefore, who cares about the location of the sampling source of the air? That is what appellant argued at trial: "It doesn't make any difference whether that blood or breath came, you know, if some of the alcohol came from the mucus or trachea." (2RT 334.) The trial court agreed: "You measure the breath and whatever you have there. If it's above or below as a matter of law, that's in violation." (Id. at 335.)

Yet, appellant's petition for review recognized that the premise of breath testing is an analysis of "the last portion of the breath under the theory that it approximates the alveolar air space where the gas exchange is occurring under principles of Henry's Law. [Citation]." (Petition for Review, p. 8.) This cannot be disputed. As this Court has described it:

> When a subject blows into a breath-testing machine, the device *measures the amount of alcohol vapor expelled into alveolar spaces deep in the lungs.* From *this measurement of breath alcohol*, a blood-alcohol percentage can be computed using a mathematical constant. The conversion from breath alcohol to blood alcohol is based on the chemistry principle of "Henry's law," which holds that there is "a constant ratio

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[13] Citing statistics from New Jersey v. Downie (1989) 117 N.J. 450, 462.) Even Downie's statistics noted that in 2.3% of cases, breath testing overestimated blood alcohol levels, evidence that could arguably create reasonable doubt, particularly in a marginal breath alcohol case such as this.

> between the concentration of alcohol in the blood and the concentration of alcohol *in the alveolar air of the lungs.*" (Taylor & Tayac, supra, Forensic Chemist: Blood-Alcohol, § 12.19, p. 770.)

People v. McNeal (2009) 46 Cal.4th 1183,1191 (italics added.)

Appellant cannot mutate the requirement for "essentially alveolar" air to mean any air expelled out the mouth.

Appellant also appears to argue that the regulatory requirement for measurement of "essentially alveolar air" is meaningless because the (b) count does not mention alveolar air. (BOM, p.12 [the statute "does not even refer to alveolar air"].) The problem for appellant is two-fold. First, as noted *supra*, case law holds the regulations very much do matter. (People v. Williams, *supra,* at 28 Cal.4th at pp. 415-416; People v. Adams, *supra,* at 59 Cal.App.3d 567 [non-compliance with regulations is relevant because scientific standards behind breath testing accuracy are premised on them].)

Second, by state statute laboratory compliance with the relevant Department of Health regulations (as stated in the CCRs) is required. Health & Safety Code, section 100700, subdivision (a), mandates:

> Laboratories engaged in the performance of forensic alcohol analysis tests by or for law enforcement agencies on blood, urine, tissue, *or breath* for the purposes of determining the concentration of ethyl alcohol in persons involved in traffic accidents or in traffic violations ***shall comply*** with Group 8 (commencing with Section 1215) of Subchapter 1 of Chapter 2 of Division 1 of *Title 17 of the California Code of Regulations,* as they exist on December 31, 2004, until the time when those regulations are revised pursuant to Section 100703. (Italics and bolding added.)

Further, as noted, California peace officers may not use breath testing devices unless the equipment complies with Department of Health regulations. (*See* p. 18, fn. 12, *supra.*)

G. Henry's Law of Partition Ratio As Applied to Breath Tests.

Appellant notes a definitional distinction in "partition ratio" between science and law. (BOM, p. 14.) The scientific definition is Henry's Law which assumes an equilibrium in a closed container unaffected by variants in pressure and temperature. Appellant observes that the "legal meaning" is broader when the partition ratio is used to convert breath results to blood alcohol equivalents in human beings. (Ibid.) No one disputes this. But appellant erroneously claims Dr. Hlastala addressed only the narrow scientific meaning. (Id., at 15.) Not so. The record shows Dr. Hlastala's testified that the Henry's Law assumption (the scientific principle) of an equilibrium is not realistic when testing humans because "the human body is never an equilibrium in terms of alcohol." (2RT 350.)[14] Dr. Hlastala's point was that he was not addressing the partition ratio at all, but rather "factors that influence the breath, breath-alcohol, and I'm not talking about comparing it to blood." (2RT 357.)

Dr. Hlastala would have testified to two points relating to machine unreliability: 1) no alveolar air is tested from breath machines; and 2) the measurement of the amount of breath alcohol can be impacted by a number of variables (breathing pattern, breath and body temperature, blood hematocrit [number of red blood cells], and perhaps medical condition such as lung disease, and gender. (2RT 349-350, 355-356.) The fact that some of these factors also impact on partition ratio does not mean they do not

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[14] Thus, where appellant quotes Dr. Hlastala as stating he did not like the term partition ratio, it is only because he recognized that the scientific construct (Henry's Law) does not reflect reality in its application to human physiology: the theoretical principle does not "reflect[] the processes going on." (2RT 357.) No one, including appellant, disagrees. (BOM, p. 14.)

exist to impact breath alcohol measurement irrespective of the partition ratio.

The Opinion understood the difference. While some of the same factors are relevant to the partition ratio, those "variances are separately said to affect the ability of the device to read alcohol levels in a gaseous form, in the breath, *before* any conversion to blood-alcohol concentration is performed." (Opn., p. 24, italics added.)

Appellant meritlessly critiques Dr. Hlastala for thinking the partition ratio "did not even apply to the process of breath testing." (BOM, p. 16.) The doctor well understood the concepts involved. He stated his testimony did not concern the partition ratio (the legal definition, as appellant would posit). As a legal matter, under the (b) count, the only question is the amount of alcohol in the breath. The amount of measured breath alcohol is taken and then converted to a number that reflects a prohibited level of breath alcohol. As a factual matter, Dr. Hlastala said the machine does not reliably make that breath alcohol measurement. The Opinion understood this: "Although breath test results are admissible if a reliable foundation for them is laid, we think that such competent evidence of their potential inaccuracy, because of physical variabilities leading to poor data in sampling, should have been allowed to be considered, as going to the weight to be accorded the testing results." (Opn., at p. 25.) Dr. Hlastala's testimony concerned the inaccuracy of breath alcohol measurement, which is admissible evidence.

H. The Relevance of Non-Alveolar Airway Sampling.

Appellant asserts that alcohol from "bronchial vessels" is part of every person's physiology and, therefore, included in the broad legal meaning of partition ratio. (BOM, pp. 16.) It asserts that the bronchial

contribution to breath alcohol is just another factor that could effect the partition ratio conversion and that the legislature has determined it irrelevant. (Id., at p. 17.) Appellant cites nothing to support this contention, a contention at war with Title 17's regulatory requirements of testing "essentially alveolar" air.

It is meritless for appellant to assert that "the legislature has determined such evidence is irrelevant and the courts have upheld that determination." (Ibid; citing Ireland, *supra,* at 33 Cal.App.4th 680, and Bransford, *supra,* at 8 Cal.4th 885, cases dealing with partition ratio evidence and not this issue.)

While breath testing is widely used in California, that does not mean that scientific insights as to potential unreliability can be declared off-limits to courtroom testimony. Scientific truth is not frozen in time or arbitrarily confined in scope.[15]

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[15] Dr. Hlastala summarized the scientific basis for his opinions in "Paradigm Shift for the Alcohol Breath Test," 55 J. Forensic Sciences 451 (March 2010). He states the current alcohol breath test model (ABT) assumes that end-exhaled breath alcohol concentration is closely related to alveolar air alcohol concentration, but that is no longer acceptable. (Id. at p. 451). This is so because the "airway tissue interaction makes it impossible to deliver air with alveolar alcohol concentration to the mouth." (Ibid.) Studies reflect that the "very high solubility of alcohol in water guarantees its strong interaction with airway tissue"... so that "[b]y the time it reaches the alveoli, the air has picked up as much alcohol as possible." (Id. at pp. 453-454). As a result, the "alcohol that arrives at the mouth comes essentially from the airways and not from the alveoli." (Id. at pp. 453). "The fact that alcohol comes primarily from the airways is the reason why the BrAC [breath alcohol] depends on the breathing pattern. This contributes to the very large variation in the ABT readings obtained from actual subjects." (Id. at 454.) The end alcohol concentration varies based on several factors: inhaled volume, exhaled volume, prebreath hypoventilation or hyperventilation, rate of exhalation, (continued...)

Where a partition ratio defense seeks to discredit the accuracy of the coefficient which calculates breath alcohol into blood alcohol, Dr. Hlastala's proposed testimony demonstrated that the breath alcohol measurement is not derived from the alveolus and is variable based on such factors as lung size, volume, pattern of breath, *etc.* (2RT 349, 350, 351.) This variation leads to inaccurate breath alcohol readings and is distinct from arguments about the partition ratio calculation. (2RT 325, 357.)

As the Court of Appeal found, such "competent evidence of their potential inaccuracy, because of physical variabilities leading to poor data in sampling, should have been allowed to be considered, as going to the weight to be accorded the testing results." (Opn., at p. 25.)

Appellant argues that the breath factors mentioned by Dr. Hlastala are the same as those that impact on the partition ratio. (*See* BOM, p. 16 ["'alcohol from bronchial vessels' factor is part and parcel of every persons's physiology and therefore necessarily included in the broad legal meaning of partition ratio"].) This is not so. Dr. Hlastala stated breathing patterns impact the breath alcohol measurement, but breath patterns are not partition ratio factors. Bransford, *supra,* 8 Cal.4th at 889, stated the factors influencing partition ratio variations could "include body temperature, atmospheric pressure, medical conditions, sex, and the precision of the measuring device." People v. McNeal, *supra*, 46 Cal.4th at 1191, added as factors affecting the partition ratio "hematocrit level and elapsed time between drinking and breath-alcohol measurement."

When these factors were made part of the trial court's questioning of

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[15](...continued)
arterial blood concentration, and lung volume. (Id. at pp. 454-455).

Dr. Hlastala, he testified he was *not* relying on atmospheric pressure (2RT 355) *or* machine precision in his opinion on breath measuring inaccuracy. (2RT351.) Further, he testified that in this case gender was not a likely influencing factor. (2RT 355-356.) While a medical condition like a lung disease could be a factor affecting breath value (2RT 356), that too was not an issue in this case. Thus, of the factors recited in Bransford, only temperature (of breath and body) and hematocrit are included in Dr. Hlastala's list. (2RT 349, 350.) It can hardly be a remarkable point that temperature may influence more than one thing. But even assuming some factor cross-over, as the Opinion states, it is "not dispositive that similar variables must be considered, when different types of analysis are concerned." (Opn., p. 24.)

Dr. Hlastala's testimony was that breathing patterns impact reliability of the breath alcohol measurement because the breath picks up alcohol throughout the airway. Breathing patterns are not partition ratio factors, but influence breath alcohol measurements to produce unreliable results.

I. Bronchial/Tracheal Alcohol Impact on Measurement. Appellant claims Dr. Hlastala failed to state how upper airway alcohol has any effect on breath alcohol measurement. (BOM, p. 19.) Before Dr. Hlastala was cut off as he began to explain the phenomena, he testified why the breath machine measures only mucusol alcohol from the bronchial/tracheal airway and not the alveolus. (*See* 2RT 328, quoted, *supra,* at p. 9, and BOM, p. 18.)

The trial court discussion which followed outside the presence of the jury demonstrated that the parties and the court well understood the

proffered testimony as showing that, like mouth alcohol[16] (2RT 332), breath measurements are affected by alcohol in the lung's airways above the alveolar air sacs. Because breath alcohol collection is non-alveolar and derives from the entirety of the lung's airways, breathing patterns alone can affect the accuracy of breath measurements. The larger the lung, the more water in the airway passage (mucus), the longer the inhalation/exhalation, the higher the reading as the breath picks up more alcohol from the airways. The trial court understood this:

> Now, if we allow an expert to get on the stand and testify ... that it's [the alcohol] not really in the blood stream, but comes from the mucus...the only conclusion that one can draw from that is the resulting blood-alcohol reading that spits out by the machine is overstated ... Because it will never understate. It will always overstate. Well, if we have a situation where these machines are constantly overstating and you're challenging it on that basis, you're really challenging it on what's the real partition ratio. But that's exactly the analyses we can't do. (2RT 342.)

As the Opinion found, Dr. Hlastala's proffered testimony was that these are "physiological variables that can affect the sample of breath or air taken." (Opn., at p. 11.) In making its exclusionary order, the trial court misunderstood the law, the factual basis of the proffer, and the science supporting the proposed defense evidence.

In sum, the trial court erred in excluding the expert's testimony

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[16] The regulations require a 15 minute wait prior to testing to insure no mouth alcohol contaminates the test. (17 CCR § 1219.3; *see* Opn., p. 17.) Appellant's assumption is that the machines only need measure the breath sample at the end of every exhalation. If measuring breath out of the mouth were the only requirement, it would render Title 17 regulations concerning mouth alcohol (and the "essentially alveolar air" regulation) irrelevant and meaningless.

which would have undermined the prosecution case that breath tests accurately measured Mr. Vangelder's breath alcohol content.

II. THE ERROR IN EXCLUDING THE DEFENSE BASED ON EXPERT EVIDENCE WAS PREJUDICIAL IN DEPRIVING MR. VANGELDER OF HIS RIGHT TO PUT ON HIS DEFENSE UNDER 14TH AMENDMENT DUE PROCESS AND SIXTH AMENDMENT CONFRONTATION GUARANTEES.

A. Under State and Federal Standards, The Error in Denying the Defense Testimony and Argument is Prejudicial. As argued in Argument I(A) *supra*, the exclusion of the evidence rebutting the prosecution's breath results through Dr. Hlastala's evidence was of constitutional magnitude. (2RT 365.) The error warrants review and reversal under Chapman v. California (1967) 386 U.S. 18 [17 L.Ed.2d 705, 87 S.Ct. 824].)[17]

Appellant argues no miscarriage of justice occurred under Article VI, section 13. (BOM, p. 20.) The Opinion properly found an abuse of discretion under the more lenient state standard of prejudice. Appellant appears to recognize that the "miscarriage of justice" requirement has long been judicially defined by People v. Watson (1956) 46 Cal.2d 818, 836,

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[17] In People v. Stritzinger (1983) 34 Cal.3d 505, this Court reversed a conviction for constitutional error related to the admission of evidence. There, the Court said: "Where a fundamental constitutional right is at issue, erroneous evidentiary rulings are seldom harmless under this standard...." (Id. at 520.) After all, "where federal constitutional error occurs and prejudice can be assessed from the record, there is a strong presumption that the defendant was prejudiced." (People v. Whitt (1990) 51 Cal.3d 620, 649; *see also* People v. Guzman (2000) 80 Cal.App.4th 1282, 1290 [burden of proving error was harmless beyond a reasonable doubt is a "heavy" one].) "'To say that an error did not contribute to the ensuing verdict is ... to find that error unimportant in relation to everything else the jury considered on the issue in question, as revealed in the record.'" (People v. Neal (2003) 31 Cal.4th 63, 86, quoting Yates v. Evatt (1991) 500 U.S. 391, 403.)

where this Court stated that if a court finds there is an equal balance of reasonable probabilities on the question of whether the error affected the result, there necessarily is a reasonable probability that the result more favorable to the appealing party would have been reached in the absence of the error, and the judgment must be reversed as a miscarriage of justice. (Id. at 837; *see also* People v. Mar (2002) 28 Cal.4th 1201, 1225, relying on this part of Watson.)

Reversal under the Watson standard is required if there is a "reasonable chance" of a different outcome due to the error. (*See* College Hospital Inc. v. Superior Court (1994) 8 Cal.4th 704, 715; People v. Superior Court (Ghilotti) (2002) 27 Cal.4th 888, 918; People v. Soojian (2010) 190 Cal.App.4th 491, 519;[18] People v. Eid (2010)187 Cal.App.4th 859, 882; People v. Racy (2007) 148 Cal.App.4th 1327, 1335; People v. Elize (1999) 71 Cal.App.4th 605, 616.)

Under the Watson standard, there was a reasonable chance of a different outcome. While the appellant's brief characterizes as "overwhelming" evidence that Mr. Vangelder was at .08 at the time of the stop (BOM, p. 20), that is obviously not the case. This was a marginal "(b)" case given the breath/blood readings were at the lower limit of culpability. (See discussion of the breath measurements below.) Mr. Vangelder was not demonstrably under the influence when stopped or when driving, thus explaining why the jury hung on the generic DUI under Vehicle Code section 23152, subdivision (a) count. (RT3 515.)

The failure to convict on the generic DUI count occurred even with

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[18] The focus of the inquiry is whether the absence of the error would have changed a single juror's mind. (People v. Soojian, *supra,* 190 Cal.App.4th at 520-521.)

the jury instruction[19] and the prosecution jury argument (2RT 454) that the breath alcohol readings alone could suffice to show petitioner was under the influence for the "a" count. It is a testament to the weakness of the .08 "b" count that the jury hung on the "a" count even with the permissible inference instruction given in this case.

Further demonstrative of the closeness of the case was Ms. Ochoa's testimony that when there is an .08 reading, given the ±.01 margin of error, "the true result at that time is somewhere between a .07 and .09." (2RT 316-317.) While she opined, through extrapolation inferences, that the blood alcohol was higher at the time of driving, that assumed peak absorption at the time of the stop. The defense argued that the breath alcohol was lower then and rising during subsequent testing.

Appellant does not grapple with the above, but rather goes through Mr. Vangelder's testimony about his drinking and the various breath test readings to argue "overwhelming evidence." (BOM, pp. 20-21.) Appellant argues Mr. Vangelder's statements and testimony do not support a rising blood alcohol defense. (BOM, p. 21.) But even where witness statements or testimony are completely discredited, that in no way proves a fact the prosecution must show, *i.e.,* the .08 in this case.

> The rejection of a witness's testimony by the trier of fact has only the effect of removing that testimony from the evidentiary mix. Without more, the disregard or disbelief of the testimony of a witness is not affirmative evidence of a contrary conclusion. [Citations] In other words, the fact that

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[19] The instruction stated: "If the People have proved beyond a reasonable doubt that the defendant's blood alcohol level was 0.08 percent or more at the time of the chemical analysis, you may, but are not required to, conclude that the defendant was under the influence of an alcoholic beverage at the time of the alleged offense." (CT 120.)

> the trier of fact does not credit a witness's testimony does not entitle it to adopt an opposite version of the facts which otherwise lacks evidentiary support.

(Beck Development Co. v. Southern Pacific Transportation Co., (1996) 44 Cal.App.4th 1160, 1205.)[20]

While appellant heavily relies on breath test results to argue no prejudice was demonstrated, *it was the very accuracy of those tests that Dr. Hlastala's testimony questioned.*

1. The Preliminary Alcohol Screen Tests. Thus, appellant relies on the PAS test. (BOM, p. 20.) The PAS results of .095 and .086 were admitted to three decimals. Title 17, CCR, section 1220.4 (b) states: "Analytical results shall be reported to the second decimal place, deleting the digit in the third decimal place when it is present." As Ms. Ochoa testified, even the blood analysis must be reported only in two digits per Title 17. (2RT 296.) Mr. Vangelder objected that the least reliable breath instrument, the PAS, should be allowed the most precise three decimal reading in court.[21] (1RT 31-32.)

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[20] *Accord* People v. Jimenez (1978) 21 Cal.3d 595, overruled on other grounds in People v. Cahill (1993) 5 Cal.4th 478 (disbelief of a witness' testimony does not create affirmative evidence to the contrary of that which is discarded. *See also* Estate of Bould (1955) 135 Cal.App.2d 260, 264.)

[21] The trial court ruling permitted PAS results to be stated in three digits but allowed cross-examination of the officer with this question: "Title 17 is dealing with a more precise test than the PAS test" so that you are "carrying out the three digits, a less precise test, than what is required for two digits on a more precise test?" (1RT 53-54.) It is an absurdity to allow the more sophisticated chemical test (the EC/IR gas chromatograph/ infrared device) to provide only a two digit read out, but the least scientific device to give the jury the most detailed "scientific" read out to three digits. Mr. Vangelder protested (continued...)

In any event, the PAS results were undermined by the ±.01 margin of error (1RT 144) as well as by the failure of the officer administering the PAS test to comply with Title 17's important requirement to observe the defendant for 15 minutes (an admitted failure in this case[22]) which protects against mouth alcohol contamination artificially increasing the breath alcohol reading. (*See* In Roze v. Department of Motor Vehicles (2006) 141 Cal.App.4th 1176, 1189 [the court upheld the trial court's ruling that "based on the evidence before it...the PAS test was not a sufficiently reliable reading of Roze's actual blood-alcohol concentration based on the manner in which it was conducted and the absence of Title 17 compliance"].)

In People v. Wilson (2003) 114 Cal.App.4th 953, the court rejected the notion "that the PAS test is the scientific equivalent of a postarrest blood, breath or urine test....The Legislature may well have found that the results of the PAS breath test, normally administered by a police officer in the field, are less accurate and reliable than the chemical tests administered under more controlled circumstances and likely with more precise equipment." (Id., at 959-960.)[23]

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[21](...continued)
this (1RT 31-32), but the court would not limit the extending PAS three digit reading. (1RT 51.)

[22] As the prosecutor told the jury. (2RT 452.) (*See* fn. 5, p. 6, *supra.*)

[23] Taking a PAS test does not satisfy the chemical testing requirement under the implied consent law and the officer must so advise the driver. (Veh. Code sec. 23612 sub. (i) states: "If the officer decides to use a preliminary alcohol screening test, the officer shall advise the person that he or she is requesting that person to take a preliminary alcohol screening test to assist the officer in determining if that person is under the influence of alcohol or drugs, or a combination of alcohol and drugs. The person's obligation to submit to a (continued...)

The PAS test is authorized as an in-field screening device and investigative tool. Vehicle Code section 23612, subdivision (h) states:

> A preliminary alcohol screening test that indicates the presence or concentration of alcohol based on a breath sample in order to establish reasonable cause to believe the person was driving a vehicle in violation of Section 23140, 23152, or 23153 is a field sobriety test and may be used by an officer as a further investigative tool.

Even taking the second PAS reading[24] of .086 and the margin of error (± .01), the result could easily have been below .08 at the time of driving and subsequent testing without factoring in possible mouth alcohol contamination. (1RT 144.) Adding the potential mouth alcohol contamination issue further undermines the PAS as definitive evidence of guilt. Adding Dr. Hlastala's testimony to the mix makes the prejudice determination obvious.

2. The EC/IR Tests. The EC/IR breath measurements at 3:37 a.m. and 3:39 a.m. (approximately 45 minutes after Mr. Vangelder was stopped) were .08, while the blood test taken at 3:52 a.m., over one hour after he was driving, was .087. (2RT 296.) Again, these were marginal readings and within the .01 error rate without factoring in the impact of Dr. Hlastala's testimony. The readings alone were indicative of a rising blood alcohol. Defense counsel argued to the jury noting that the time at issue for the .08

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[23](...continued)
blood, breath, or urine test, as required by this section, for the purpose of determining the alcohol or drug content of that person's blood, is not satisfied by the person submitting to a preliminary alcohol screening test.")

[24] Compare Ms. Ochoa's testimony that she is required to report the lower of the two values in blood testing and further to report them in two decimal places. (2RT 296.)

issue was when Mr. Vangelder was stopped. "You'll hear evidence as to what the results of tests are at times later than the actual driving took place." (1RT 81.) He argued in summation that the test results were indicative of a rising blood alcohol because the time at issue was not the time of the tests, but when Mr. Vangelder was stopped. (2RT 469-470.) He argued the problems with the officer not waiting 15 minutes to administer the PAS. (2RT 466-467.) Further, the defense noted that the breath machines have a plus or minus accuracy of .01 (3RT 482). He further argued the difficulties in extrapolating back in time, as Ms. Ochoa did, to figure the breath alcohol reading at the time of the stop (which assumed full absorption at that time). He argued the results were not indicative of the blood or breath alcohol level at 2:45 a.m. but were below .08 then. (3RT 483.)

The bottom line: the tests were within the margin of error for a finding of less than .08. The City argues there was no evidence of rising blood alcohol, but given the marginal breath readings, the margin of error, the failure to comply with the 15 minute observation, there was plenty of evidence to make the .08 issue close. Assessing the excluded defense evidence, makes clear the prejudice determination.

3. Missing in Action: Factoring in the Excluded Testimony. Most significantly, in its prejudice analysis, appellant does not grapple with assuming error in the denial of Dr. Hlastala's testimony (as it must for purposes of the argument) and then assessing the evidence in light of his testimony. The expert would have credibly testified that breath alcohol tests are unreliable. As noted, the prosecutor had no issues with his credentials or science. He told the court that if an instruction were to be given telling the jury not consider Dr. Hlastala's testimony that he didn't "want to do anything that reflects on the doctor's credibility" because he's "obviously

very qualified." (2RT 364.)

The state law prejudice question asks: in the context of all the evidence *including* Dr. Hlastala's testimony, was there a reasonable chance one juror would have found a reasonable doubt and voted to acquit? Some number of jurors held that doubt on the generic DUI charge. With the addition of the excluded evidence, there was a reasonable chance one or more would have done the same as to the .08 count.[25]

Appellant's brief fails to do this essential analysis and simply argues a form of substantial evidence assessment. Its failure to address the prejudicial result in excluding the defense evidence had it been admitted must be taken to mean that the exclusion was prejudicial.

Dr. Hlastala's testimony surely would have given Mr. Vangelder a "reasonable chance" of a better outcome on the .08 count. Because "the issue affected by the ruling was crucial....An error that impairs the jury's determination of an issue that is both critical and closely balanced will rarely be harmless." (People v. McDonald, *supra,* 37 Cal.3d 351, 376.) The error prejudiced Mr. Vangelder.

CONCLUSION

Mr. Vangelder had a constitutional and statutory right to introduce his defense to the accuracy of the breath results produced by the prosecution. Title 17 requires "essentially alveolar" air be sampled, but Dr. Hlastala's testimony would have shown that no alveolar air is sampled. As

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[25] As the Opinion found, exclusion of the evidence was prejudicial given that this was a marginal breath alcohol reading, Mr. Vangelder performed well on the field tests and drove skillfully in his antecedent driving, there were problems in administering the PAS test, and the jury hung on the generic DUI count. (Opn., at p. 26.) "Even a small error could possibly turn a marginally legal reading into an illegal reading." (Id., at 25.)

People v. Adams, *supra*, 59 Cal.App.3d 567, states: "In the present case, as the regulations were not followed, appellants were entitled to attempt to discredit the results by showing that noncompliance affected their validity...."

Both law and science are involved in the search for truth.[26] A ruling that arbitrarily removes relevant science from a case is neither good law, good science, nor a good means of truth finding. The law does not enshrine scientific assumptions behind impenetrable protective barriers.

Disputes among experts as to the reliability of a breath alcohol measurement does not mean it is the trial court's role to choose the side it finds more convincing and exclude the other. Elemental fairness requires the citizen accused of driving under the influence be allowed to contest the State's case with relevant evidence.

For the above reasons, Mr. Vangelder's conviction should be reversed and the matter remanded for further proceedings in the trial court.

Respectfully submitted,

December 19, 2011 Charles M. Sevilla
Attorney for Terry Vangelder

CERTIFICATION OF WORD COUNT

This brief is proportionally spaced (1.5 line spacing) in 13 point Word Perfect Times Roman and, according to Word Perfect 13 software, contains 10,422 words. (Rules of Court, Rule 8.520(c)(1).)

December 19, 2011 _____
Charles M. Sevilla

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[26] Arthur Schopenhauer stated, "All truth passes through three stages. First, it is ridiculed. Second, it is violently opposed. Third, it is accepted as being self-evident." (http://www.brainyquote.com/quotes/authors/a/arthur_schopenhauer.html.)

IN THE SUPREME COURT OF THE STATE OF CALIFORNIA

PEOPLE, STATE OF CALIFORNIA,	)	**S195423**
	)	
Plaintiff/Appellant,	)	Court of Appeal No.
	)	D059012
v.	)	
	)	Superior Court App. Div.
TERRY VANGELDER,	)	No. CA221258
	)	
Defendant/Respondent.	)	Super. Ct. No. M039138
	)	

PROOF OF SERVICE

I, the undersigned, say that I am over 18 years of age, a resident of the County of San Diego, State of California, and not a party to the within action; that my business address is 1010 Second Ave., Suite 1825, San Diego, California, 92101. That I served the within Respondent's Merits Brief on Terry Vangelder and also delivering by first class mail a copy to:

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and the same were delivered and deposited in the U.S. mail at San Diego, California on December 19, 2011. I certify under penalty of perjury that the foregoing is true and correct. Executed on this 19th day of December 2011 in San Diego, California.