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IN THE SUPREME COURT  
OF THE STATE OF WASHINGTON

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STATE OF WASHINGTON,

Respondent,

v.

MEGAN LARES-STORMS,

Petitioner.

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MEMORANDUM OF *AMICUS CURIAE*  
FRED T. KOREMATSU CENTER FOR LAW AND EQUALITY  
IN SUPPORT OF PETITION FOR REVIEW

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## TABLE OF CONTENTS

TABLE OF AUTHORITIES .....	ii
STATEMENT OF IDENTITY AND INTEREST OF AMICUS CURIAE .....	1
INTRODUCTION AND SUMMARY OF ARGUMENT .....	2
ARGUMENT .....	2
I.    EMPIRICAL RESEARCH CASTS DOUBT ON THE RELIABILITY OF DRUG-DETECTION DOGS.....	2
A. Empirical Research Demonstrates that Drug-Detection Dogs Are Often Unreliable.....	3
B. Empirical Research Demonstrates that Drug-Detection Dogs Are Influenced by Their Handlers. ....	5
II.   EMPIRICAL RESEARCH DEMONSTRATES THAT DOG SNIFF SEARCHES OF PEOPLE OF COLOR PRODUCE DISPROPORTIONATELY HIGH FALSE POSITIVES WHEN COMPARED TO SEARCHES OF WHITES. ....	7
CONCLUSION.....	10

## TABLE OF AUTHORITIES

### WASHINGTON CASES

<i>State v. Jackson</i> , 102 Wn.2d 432, 688 P.2d 136 (1984).....	3, 7
<i>State v. Saintcalle</i> , 178 Wn.2d 34, 309 P.3d 326 (2013).....	7

### FEDERAL CASES

<i>Aguilar v. Texas</i> , 378 U.S. 108, 84 S. Ct. 1509, 12 L. Ed. 2d 723 (1964).....	3
<i>Florida v. Harris</i> , 568 U.S. 237, 133 S. Ct. 1050, 185 L. Ed. 2d 61 (2013).....	3
<i>Gonzalez-Rivera v. I.N.S.</i> , 22 F.3d 1441 (9th Cir. 1994) .....	7
<i>Illinois v. Caballes</i> , 543 U.S. 405, 125 S. Ct. 834, 160 L. Ed. 2d 842 (2005).....	3
<i>Spinelli v. United States</i> , 393 U.S. 410, 89 S. Ct. 584, 21 L. Ed. 2d 637 (1969).....	3
<i>United States v. Guyton</i> , Criminal Action No. 11-271, 2013 WL 2394895 (E.D. La. Apr. 16, 2013) .....	6
<i>United States v. One Million, Thirty-Two Thousand, Nine Hundred Eighty Dollars in U.S. Currency</i> , 855 F. Supp. 2d 678 (N.D. Ohio 2012).....	6
<i>United States v. Rhee</i> , 3:12CR2, 2014 WL 2213079 (N.D. Ohio May 28, 2014) .....	6

CONSTITUTIONAL PROVISIONS

Wash. Const. art. I, § 7.....2

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ACLU of Illinois, *Racial Disparity in Consent Searches and Dog Sniff Searches* (Aug. 13, 2014), <https://www.aclu-il.org/en/publications/racial-disparity-consent-searches-and-dog-sniff-searches> .....9

Kelly J. Garner et al., *Duty Cycle of the Detector Dog: A Baseline Study* (Apr. 2001), [http://info.dsiti.com/hs-fs/hub/40565/file-14168106-pdf/docs/6-8-09\\_dutycycle\\_of\\_police\\_dog.pdf](http://info.dsiti.com/hs-fs/hub/40565/file-14168106-pdf/docs/6-8-09_dutycycle_of_police_dog.pdf) .....3, 4

Dan Hinkel & Joe Mahr, *Drug Dogs Often Wrong*, Chi. Trib., Jan 6, 2011.....8, 9

Lewis R. Katz & Aaron P. Golembiewski, *Curbing the Dog: Extending Protection of the Fourth Amendment to Police Drug Dogs*, 85 Neb. L. Rev. 735 (2007).....4

Charles R. Lawrence III, *The Id, The Ego, and Equal Protection: Reckoning with Unconscious Racism*, 39 Stan. L. Rev. 317 (1987).....8

Lisa Lit et al., *Handler Beliefs Affect Scent Detection Dog Outcomes*, 14 Animal Cognition 387 (2011).....5, 6

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Leslie A. Shoebottom, *Off the Fourth Amendment Leash: Law Enforcement Incentives to Use Unreliable Drug-Detection Dogs*, 14. Loy. J. Pub. Int. L. 251, 266-274 (2012) .....10

## **STATEMENT OF IDENTITY AND INTEREST OF AMICUS CURIAE**

The Fred T. Korematsu Center for Law and Equality is based at Seattle University School of Law and advances justice through research, advocacy, and education. The Korematsu Center is dedicated to advancing the legacy of Fred Korematsu, who defied the military orders during World War II that ultimately led to the incarceration of over 120,000 Japanese Americans. He took his challenge of the military orders to the United States Supreme Court, which upheld his conviction in 1944 on the ground that the removal of Japanese Americans was justified by “military necessity.” Mr. Korematsu went on to successfully challenge his conviction and to champion the cause of civil liberties and civil rights for all people. The Korematsu Center, inspired by his example, works to advance his legacy by promoting social justice. It has a special interest in promoting fairness in the courts of our country. That interest includes ensuring that effective remedies exist to address implicit and explicit bias in the courtroom and in the criminal justice system at large. The Korematsu Center does not, in this brief or otherwise, represent the official views of Seattle University.

## **INTRODUCTION AND SUMMARY OF ARGUMENT**

When considered as a class, drug-detection dogs are often unreliable informants. Empirical evidence demonstrates that drug-detection dogs produce high rates of false positives, alerting their handlers to the existence of odors associated with illicit substances despite the absence of those illicit substances. Further empirical evidence demonstrates that drug-detection dogs can be influenced by intentional and unintentional cues they intuit from their handlers. Drug-detection dogs may provide alerts because of the handler's belief that drugs might be present, rather than the actual presence of drugs. The susceptibility of drug-detection dogs to handler cues is even more troubling when a handler's explicit or implicit bias might lead a drug-detection dog to produce false positives when searching people of color.

Though race is not directly involved in this case, the rules that emerge from this case will influence the role that race plays in our state's criminal justice system. Thus, in addition to meriting discretionary review for its constitutional dimensions under article I, section 7, this case merits discretionary review under RAP 13.4(b)(4) as presenting an issue of substantial public importance.

## **ARGUMENT**

### **I. EMPIRICAL RESEARCH CASTS DOUBT ON THE RELIABILITY OF DRUG-DETECTION DOGS.**

A police dog's indication of contraband is construed as a type of

informant's tip. *See Florida v. Harris*, 568 U.S. 237, 244, 133 S. Ct. 1050, 185 L. Ed. 2d 61 (2013). When evaluating the reliability of a tip, Washington applies the *Aguilar-Spinelli*<sup>1</sup> two-pronged test. *State v. Jackson*, 102 Wn.2d 432, 435, 688 P.2d 136, 138 (1984). Under Washington's test, the State must demonstrate the reliability of both the tip and the informant. *Id.*

A. Empirical Research Demonstrates that Drug-Detection Dogs Are Often Unreliable.

The "tips" that drug-detection dogs provide may be unreliable, as these dogs frequently give false alerts, or "false positives." The length of the dogs' work day, among other circumstances, can radically affect the reliability of the alert. A 2001 study cited by dog proponents to suggest the *reliability* of dog drug detection concludes that dogs issue false alarms between 12.5% and 60% of the time in experimental conditions.<sup>2</sup> *See Illinois v. Caballes*, 543 U.S. 405, 412 (2005) (Souter, J., dissenting) (criticizing Illinois's reliance on this study as indicia of canine reliability). Even though the dogs were specially trained to work for long periods to

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<sup>1</sup> The *Aguilar-Spinelli* test requires the warrant affidavit to demonstrate both the informant's basis of knowledge and the veracity of that information. *See Spinelli v. United States*, 393 U.S. 410, 89 S. Ct. 584, 21 L. Ed. 2d 637 (1969); *Aguilar v. Texas*, 378 U.S. 108, 84 S. Ct. 1509, 12 L. Ed. 2d 723 (1964).

<sup>2</sup> Kelly J. Garner et al., *Duty Cycle of the Detector Dog: A Baseline Study* 12 (2001), [http://info.dsiiti.com/hs-fs/hub/40565/file-14168106-pdf/docs/6-8-09\\_dutycycle\\_of\\_police\\_dog.pdf](http://info.dsiiti.com/hs-fs/hub/40565/file-14168106-pdf/docs/6-8-09_dutycycle_of_police_dog.pdf).

detect certain smells, the dogs' performance steadily deteriorated as they worked. Garner, *supra* n.2 at 12. After only two hours of work, the dogs' rate of false alarms spiked to 60%. *Id.* This study, among other considerations, led Justice Souter to conclude that the "infallible dog" is "a creature of legal fiction." *Caballes*, 543 U.S. 405 at 411.<sup>3</sup>

Further, empirical literature reveals that dogs' highly sensitive sense of smell can indicate a wide range of both legal and illegal substances. For example, dogs do not smell heroin per se, but rather alert to the acetic acid in heroin, which is a common substance also found in pickles and certain glues. Katz & Golembiewski, *supra* n.3 at 755. The organic chemical compound which a dog alerts to in cocaine, methyl benzoate, is found in many legal products, including foods, pharmaceuticals, and personal products. *Id.* (discussing challenges of effectively training drug dogs to alert to cocaine, as cocaine initially emits very high levels of methyl benzoate, but soon reduces to levels consistent with legal products). In addition to these more basic studies examining the reliability of drug-detecting dogs, other studies examine how human behavior influences the reliability of their canine partners.

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<sup>3</sup> False positive rates also range dramatically among dogs. While some dogs rarely err, others are far more reactive, with judges determining false positive rates to reach over 50%. Lewis R. Katz & Aaron P. Golembiewski, *Curbing the Dog: Extending Protection of the Fourth Amendment to Police Drug Dogs*, 85 Neb. L. Rev. 735, 757 (2007).

B. Empirical Research Demonstrates that Drug-Detection Dogs Are Influenced by Their Handlers.

Dogs may also be unreliable “informants” because human cues have a powerful impact on dog behavior. Scientists have found that dogs respond to many types of human characteristics and behaviors, including their handler’s gender, personality, eye movements, gestures, posture, head orientation, proximity, and voice. Lisa Lit et al., *Handler Beliefs Affect Scent Detection Dog Outcomes*, 14 *Animal Cognition* 387, 388 (2011) (citation omitted). Sometimes dogs trust humans above and beyond their own senses. In one study, almost half of the dogs approached an empty bowl indicated by human pointing rather than a bowl where the dog had already seen and smelled food. *Id.* at 388 (citations omitted). Not only are dogs *not* neutral, but human cues can override powerful sensory inputs – like food.

Dr. Lit’s recent double-blind study, *Handler Beliefs Affect Scent Detection Dog Outcomes*, demonstrates that even trained police dogs become more error-prone due to handler beliefs. Researchers at the University of California, Davis, invited eighteen police dogs and their handlers to participate in a study in which they would attempt to detect the presence of contraband. *Id.* at 388-90. Unbeknownst to the handlers, there was no contraband whatsoever, so any dog alerts were false positives. *Id.*

at 389.<sup>4</sup> In total, the handlers reported their dogs to have (erroneously) alerted 85% of the time when there was no contraband present—a glaring error rate. *Id.* at 390. Moreover, false positives were especially prevalent when the handler held preconceived notions about the presence of contraband—and inadvertently cued his or her dog. *Id.* at 392-93. The researchers noted that “the overwhelming number of incorrect alerts identified across conditions *confirms that handler beliefs affect performance.*” *Id.* at 391 (emphasis added).<sup>5</sup>

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<sup>4</sup> Each of the four rooms had four possible “conditions”: (1) control; (2) red paper marker; (3) unmarked decoy scent (sausage and tennis ball); and (4) red paper marker at the decoy scent. *Id.* at 389. Before the dogs inspected a room, the researchers instructed their handlers that each condition might contain up to three target scents, and that target scent markers consisting of a red piece of construction paper would be present in two conditions. *Id.* at 389. In actuality, these red papers were decoys and there was no contraband, but the handlers were none the wiser. *Id.*

<sup>5</sup> At least one court has cited the Lit et al. study to support its suggestion that “the time might be right for a reevaluation of the proper training, certification, use and application of the dog sniff as a tool of law enforcement and as a means to enable intrusion into Fourth Amendment protected space.” *United States v. One Million, Thirty-Two Thousand, Nine Hundred Eighty Dollars in U.S. Currency*, 855 F. Supp. 2d 678, 722 (N.D. Ohio 2012). The same court in a different case did not find the study persuasive, criticizing the study for not employing a complete double-blind protocol. *United States v. Rhee*, No. 3:12CR2, 2014 WL 2213079 at \*4 (N.D. Ohio May 28, 2014). However, the study employed the double-blind protocol to the extent possible, Lit et al., *supra*, at 390, but of course could not be truly double blind because the researchers had to tell the handlers that the red paper markers indicated possible presence of contraband to test the hypothesis that handler belief affected whether the dog would alert.

Another court noted that “the conclusions of this study have not been unanimously accepted[.]” *United States v. Guyton*, No. 11-271, 2013 WL 2394895 at \*7-8 (E.D. La. Apr. 16, 2013), citing as an example a responsive article that purported to identify a number of flaws in the study. That two page article—self-published online and without peer review—did not identify limitations in the study that Dr. Lit had not already forthrightly acknowledged. Compare Scientific Working Group on Dog and Orthogonal Detector Guidelines (SWGDOG), *SWGDOG Membership Commentary on “Handler beliefs affect scent detection dog outcomes”* by L. Lit, J.B. Schweitzer and A.M. Oberbauer (Mar. 31 2011), [http://swgdog.fiu.edu/news/2012/swgdog-response-to-lit-k9-study/swgdog\\_response\\_to\\_lit\\_study.pdf](http://swgdog.fiu.edu/news/2012/swgdog-response-to-lit-k9-study/swgdog_response_to_lit_study.pdf), with Lit et al., *supra*, at 393.

Because the empirical literature calls into question the ability of drug-detection dogs to give accurate “tips,” and raises the real possibility that human cues influence drug-dog reliability, and therefore the veracity of their knowledge, *see supra* n.1, the State must provide the individual dog’s track record, including false positives and false negatives, to support issuance of a warrant. *Jackson*, 102 Wn.2d 432 at 437 (“The most common way to satisfy the ‘veracity’ prong is to evaluate the informant’s ‘track record,’ i.e., has he provided *accurate information* to the police a number of times in the past?” (emphasis added)).

II. EMPIRICAL RESEARCH DEMONSTRATES THAT DOG SNIFF SEARCHES OF PEOPLE OF COLOR PRODUCE DISPROPORTIONATELY HIGH FALSE POSITIVES WHEN COMPARED TO SEARCHES OF WHITES.

Washington Courts, as well as the Ninth Circuit, have come to understand that all people harbor implicit biases—and handlers, who might cue their dogs based on these biases, intentionally or unintentionally, are no exception. *See State v. Saintcalle*, 178 Wn.2d 34, 46-49 (2013) (plurality opinion) (highlighting studies on implicit racial bias and their importance in informing the debate about reforming the peremptory challenge system). The Ninth Circuit has recognized the effect of implicit racial bias specifically in the Fourth Amendment traffic stop context. *See Gonzalez-Rivera v. INS.*, 22 F.3d 1441, 1449-50 (9th Cir.

1994) (finding a border patrol’s decision to stop a vehicle because the passengers appeared to be Hispanic to be an egregious constitutional violation, noting that police “may use racial stereotypes as a proxy for illegal conduct without being subjectively aware of doing so” (citing Charles R. Lawrence III, *The Id, The Ego, and Equal Protection: Reckoning with Unconscious Racism*, 39 Stan. L. Rev. 317, 322 (1987)). Weaving together what Washington courts acknowledge about the operation of implicit bias with studies establishing the “handler effect,” it is likely that a handler’s implicit racial bias—i.e., an officer’s subconscious belief that people of color are more likely to have contraband in their possession—will negatively affect canine reliability.

Investigative reporters at the Chicago Tribune published an article in 2011 analyzing three years of searches based on dog alerts conducted by suburban police departments outside of Chicago. Dan Hinkel & Joe Mahr, *Drug Dogs Often Wrong*, Chi. Trib., Jan 6, 2011. The reporters found that only 44 percent of all alerts led to the discovery of drugs or paraphernalia. *Id.* Critically, they found the dog sniff searches of Hispanic drivers produced disproportionately high false positive rates; when the data for Hispanic drivers was disaggregated, the success rate was just 27

percent. *Id.*<sup>6</sup> Stated differently, drug-detection dogs had a false positive rate of 56% overall and a 73% false positive rate when Hispanic motorists were subjected to a dog sniff search.

After the Chicago Tribune article was published, a report by the ACLU of Illinois confirmed that data collected on dog sniff searches revealed that there was “a substantial racial disparity in erroneous dog alerts.” ACLU of Illinois, *Racial Disparity in Consent Searches and Dog Sniff Searches*, at 7 (Aug. 13, 2014), <https://www.aclu-il.org/en/publications/racial-disparity-consent-searches-and-dog-sniff-searches>. When comparing white motorists and Hispanic motorists who were subjected to dog sniff searches, white motorists were 64% more likely than Hispanic motorists to be found with contraband. *Id.* at 8. It is plausible to surmise that the higher rate of false positives for Hispanic drivers might stem at least in part from handler cues, especially when the initial decision to conduct a dog sniff search may itself be the result of

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<sup>6</sup> The success rate for Blacks was 46%, and for Caucasian 49%. Hinkel & Mahr, *supra*. The article did not explain or otherwise hypothesize why the success rates for Blacks and Hispanics differed so notably. *See id.* The Chicago Police Department did not report any data. *Id.*

When the data was disaggregated for the individual departments who had the highest numbers of total dog sniff searches, it showed more significant disparities in alert accuracy between Hispanic and non-Hispanic drivers. Hinkel & Mahr, *supra*. For instance, McHenry County data showed that 32 percent of the 103 searches based on dog alerts led to the finding of drugs or paraphernalia, with searches on Hispanic drivers turning up drugs in only 1 of 8. *Id.* Naperville County data demonstrated that 47 percent of searches turned up drugs or paraphernalia, with searches on Hispanic drivers turning up drugs in only 1 of the 12 stops, for a rate of 8 percent. *Id.*

bias, explicit or otherwise, on the part of either the handler, the other officers who make the initial decision to deploy the dog, or both.<sup>7</sup>

## CONCLUSION

The empirical data reveal two important problems with the use of drug-detection dogs—first that they often give high rates of false positives, and second that they are susceptible to improper human cues. Because this case involves issues of substantial public interest, this Court should grant review. Doing so will enable the Court to guide judicial officers regarding the particularized information the state must provide to satisfy the requirements of *Aguilar-Spinelli*, thereby ensuring that drug-detecting dogs do not inadvertently perpetuate the very racial disproportionalities we all seek to remedy.

RESPECTFULLY SUBMITTED this 12th day of July,

*s/Jessica Levin*

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<sup>7</sup> Scholars have observed how the use of drug-detection dogs contributes to the disproportionate impact on people of color in the civil forfeiture context. *See, e.g.,* Leslie A. Shoebottom, *Off the Fourth Amendment Leash: Law Enforcement Incentives to Use Unreliable Drug-Detection Dogs*, 14. *Loy. J. Pub. Int. L.* 251, 266-274 (2012); *see also* RCW 69.50.505(7) (allowing law enforcement to use or sell forfeited property).

## DECLARATION OF SERVICE

I declare under penalty of perjury under the laws of the State of Washington, that on July 12, 2018, the forgoing document was electronically filed with Washington State's Appellate Court Portal, which will send notification of such filing to all attorneys of record.

Signed in Seattle, Washington, this 12th day of July, 2018.

By: *s/ Jessica Levin*

Jessica Levin

Counsel for *Amicus Curiae*

Fred T. Korematsu Center for Law and Equality

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