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April 23, 2014

Chairman Tom Ammiano
Assembly Public Safety Committee
State Capitol
Sacramento CA 95814

Dear Chairman Ammiano:

We wish to reiterate our opposition to AB 2500 (Frazier) as amended, which would criminalize driving with specified trace levels of marijuana or other controlled substances in one's blood regardless of actual impairment. As documented in the appendix below, the government's own experts acknowledge that there exists no scientific basis for determining driving impairment from levels of THC or other controlled substances in the blood.

In specific, with regards to the proposed per se DUI standard of 2 nanograms/milliliter THC in blood, the science is clear that such levels do not constitute impaired driving. Blood levels above 2 ng/ml have been detected for as long as six days after last use in chronic users,¹ far longer than the measurable impairment period of 2.5 – 4 hours.² As a result, AB 2500 will wrongly criminalize countless non-impaired drivers as DUI.

Unlike alcohol, the blood level of marijuana's major active constituent, THC, has no direct relation to the actual dosage consumed or active in the body. Instead, it reflects recency of use, spiking to high levels immediately after smoking then declining quickly to lower levels within an hour or so regardless of dosage.³ Like alcohol, for which non-zero blood levels are permitted under California law, THC can occur at low concentrations with no adverse impact on driving.⁴ Unlike alcohol, THC can remain detectable in the blood for hours and days after last use, long after any impairment has faded. Regular users tend to develop tolerance to THC impairment, allowing them to drive safely.⁵ Medical

users have even manifested improved driving skills with THC levels as high as 71 ng/ml THC in blood. ⁶

Numerous studies have found no higher accident risks in drivers with THC in blood; some have even reported lower risks, perhaps because marijuana induces more cautious driving.⁷ Studies of driving accidents have consistently found that marijuana poses a significantly lesser hazard than alcohol and other drugs, such as prescription narcotics.⁸ Studies have variously estimated that THC-positive drivers have a 1.2 - 2.3 times higher average statistical risk for accidents, less than drivers with low, legal amounts of alcohol.⁹ These risks are uneven for different drivers and far less than those for alcohol at the legal limit (4.5 - 8.5 times). Thus, AB 2500 irrationally punishes marijuana more harshly than alcohol and other, more dangerous drugs.

Government experts agree that there is no clear, per se threshold for driving impairment. According to the U.S National Highway Traffic Safety Administration it is "inadvisable to try and predict effects based on blood THC concentrations alone," as "concentrations of parent drug and metabolite are very dependent on pattern of use as well as dose."¹⁰ See Appendix below.

We note that similar consideration apply to the other controlled substances covered in AB 2500. Alcohol is unique in being the only drug for which blood concentrations have been shown to offer a clear threshold for impairment. AB 2500 would therefore wrongly criminalize countless non-impaired drivers with trace amounts of other drugs, including some legally prescribable narcotics.

There is no evidence of a drug DUI crisis in California. California ranks among the top states in the nation with regards to highway safety.¹¹ Even while the availability of medical marijuana has expanded, California's highway fatality rate has continued to post record lows in recent years. Neither has there been any surge in DUIs, arrests for which have declined by 5% from 2003 to 2012.¹² California prosecutors currently enjoy a 79% conviction rate for DUI, up substantially from 64% since 1989.¹³

California's present DUI law is sound. The law properly allows drug tests to be considered along with other relevant evidence in determining whether a driver is DUI. A study of states that have adopted per se drugged driving laws found "no evidence that they reduce driving fatalities."¹⁴ If California is interested in better detection of drug-impaired driving, it should consider performance tests that measure actual impairment, rather than chemical residues in the system.

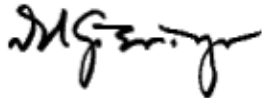
In 2012, the Governor signed AB 2552 to collect better statistics on drug DUI arrests in California. These data ought to be tracked and assessed before enacting any new drug DUI legislation. Likewise the federal government is currently assessing drug DUI policy; until this is completed, it would be

premature to revise California's current laws.

In sum, AB 2500 will wrongly criminalize thousands of unimpaired drivers, including many seriously ill medical cannabis patients; significantly increase the cost of DUI enforcement; put innocent drivers at risk of blood testing; and do nothing to improve highway safety.

We strongly urge the legislature to reject AB 2500.

Sincerely,

A handwritten signature in black ink, appearing to read "Dale Gieringer". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

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REFERENCES

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- ⁸ Elvik R Risk of road accident associated with the use of drugs: A systematic review and meta-analysis of evidence from epidemiological studies. *Accident Anal. Prev.* doi.org/10.1016/j.aap.2012.06.017 (2012); Terhune, KW et al. The Incidence and Role of Drugs in Fatally Injured Drivers, NHTSA Report (Oct 30. 1992); Sewell et al., op. cit
- ⁹ Callaghan RC, Gatley JM, Veldhuizen S, Lev-Ran S, Mann R, Asbridge M. "Alcohol- or drug-use disorders and motor vehicle accident mortality: A retrospective cohort study." *Accid Anal Prev.* 53C:149-155 (Feb 1 2013); Bédard, M, Dubois, S, and Weaver, B. The impact of cannabis on driving. *Canadian Journal of Public Health*, 98#1:6-11. (Jan-Feb 2007); Elvik op. cit.
- ¹⁰ NHTSA, op. cit. (2013).
- ¹¹ NHTSA- FARS Data: <http://www-nrd.nhtsa.dot.gov/Pubs/811399.pdf>
- ¹² California Center for Criminal Justice Statistics: <http://.oag.ca.gov/crime/cjsc/stats/arrests>
- ¹³ California DMV: An Evaluation of Factors Associated With Variation in DUI Conviction Rates Among California Counties (2011).
- ¹⁴ D. Mark Anderson & Daniel Rees, "Per Se Drugged Driving Laws and Traffic Fatalities," Institute for the Study of Labor (IZA) Germany (2012).

APPENDIX – EXPERT TESTIMONY ON SCIENTIFIC INADEQUACY OF DRUG TESTING TO DETERMINE IMPAIRMENT

“Toxicology has some important limitations. One limitation is that, with the exception of alcohol, toxicology cannot produce "per se" proof of drug impairment. That is, the chemist can't analyze the blood or urine and come up with a number that "proves" the person was or wasn't impaired.” 2011 NHTSA DRE (Drug Recognition Expert) Training Manual: <http://www.maine.gov/dps/bhs/impaired-driving/law-enf-resources/dre/documents/7daystu1-10-11.pdf>

“It is difficult to establish a relationship between a person's THC blood or plasma concentration and performance impairing effects. ... It is inadvisable to try and predict effects based on blood THC concentrations alone, and currently impossible to predict specific effects based on THC-COOH concentrations.” NHTSA online factsheet: <http://www.nhtsa.gov/People/injury/research/job185drugs/cannabis.htm>

“Except for ethanol, determinations of drug concentrations in body fluids are at present of limited value for establishing driving impairment. ... Although psychoactive drugs are those most commonly thought to cause impaired driving, their mere presence in body fluids cannot be construed as evidence of impairment.” JAMA: <http://www.ncbi.nlm.nih.gov/pubmed/4057471>

“One of the program’s objectives was to determine whether it is possible to predict driving impairment by plasma concentrations of THC and/or its metabolite, THC-COOH, in a single sample. The answer is very clear: it is not. Plasma of drivers showing substantial impairment in these studies contained both high and low THC concentrations; and, drivers with high-plasma concentrations showed substantial, but also no impairment, or even some improvement.” DOT/NHTSA: <http://ntl.bts.gov/lib/25000/25800/25867/DOT-HS-808-078.pdf> (page 107)

“[T]here is no direct correlation between driving impairment and THC concentration.” Hartman and Huestis, 2012, Clinical Chemistry, Cannabis Effects on Driving Skills. [By Dr. Marilyn Huestis, NIDA expert on drug testing]