

TESTIMONY BY REGGIE GAUDINO, Ph.D. Vice President, Science, Genetics & Intellectual Property Steep Hill Labs, Inc.

Before the Sixth Meeting
Of the
New Mexico Legislative Health and Human Services Committee
State Capitol, Room 322
Santa Fe, NM

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THERE IS NO FDA IN CANNABIS TESTING

Therefore, Safe Cannabis for Patients is Left to the States States Must Respond on Behalf of Patients

Our goal at Steep Hill is to ensure safe and tested cannabis for our customers where ever we go in the world. We are in the business of quality assuredness and work with cultivators, producers, and regulators to achieve the best results for patients.

We do this by following good laboratory practices (GLP), using state of the art equipment, continually innovating methodology, and by conducting research and generating peer reviewed publication of our research. We have provided some of those by handout today.

A Common perception among cannabis users is, "Marijuana Never Killed Anyone":

- While the plant may not have killed anyone, the contaminants, the lack of good testing and best handling practices, and a non-enforced regulated supply of product has been responsible for patient deaths http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(16)30605-X/pdf
- The reality is there is no data. The CDC doesn't track Cannabis deaths.

At Steep Hill, we believe that the industry must strive to attain an FDA level of safety, and ultimately this standard will be mandated by the federal government, similar to the rest of our food and drug supply. But as of now, no national standards have been developed and thus states are regulating themselves:

- No state has mandated regulations close to an FDA standard.
- Steep Hill has examined various aspects of quality assurance related to Cannabis Safety and published the results.

Additionally, it is well known that there have been issues with bad actor labs in several states, particularly noteworthy is the study done with the BioTrack data from Washington State.

- The common denominator in the rise of bad actor labs in ALL cases was a lack of enforcement. With no enforcement, regulations have no teeth and thus present no deterrent. Cannabis is too valuable for there to be no deterrent.
- Evidence of what happens in the absence of enforcement:
 - Washington State MacRae study
 http://www.straightlineanalytics.biz/2015/12/labbiness-in-washington-labs-where-is-the-truthiness-when-you-need-it/
 - Washington State part 2. 2nd MacRae study
 http://www.straightlineanalytics.biz/2017/03/peak-potency-lab-friendliness-is-back-with-a-gusto/
 - Leafly article <u>https://www.leafly.com/news/industry/leafly-investigation-washingtons-top-cannabis-lab-inflating-thc-numbers</u>
 - Leafly follow up article
 - https://www.leafly.com/news/industry/washington-labs-launcheffort-to-address-credibility-crisis
 - Steep Hill Pesticide Report on Northern California Cannabis
 Market
 https://www.prnewswire.com/news-releases/steep-hill-launches-
 - nttps://www.prnewswire.com/news-releases/steep-niii-launchesnew-high-detection-cannabis-pesticide-testing-in-california-300347811.html
 - NBC study pesticides
 http://www.nbclosangeles.com/investigations/I-Team-Marijuana-Pot-Pesticide-California-414536763.html

- Thompson study CBS news report
 http://sanfrancisco.cbslocal.com/2017/02/06/medical-marijuana-fungus-death-uc-davis-medical-center/ "Bad fungal disease in a short amount of time"
- Steep Hill's Pesticides in Clone Study
 https://www.prnewswire.com/news-releases/steep-hill-study-provides-evidence-of-substantial-pesticide-contamination-in-california-cannabis-clones-300524426.html
- Australia just last week, in a country that does not test cannabis, the headline was "The Cannabis Oil Healers Prey on the Sick and Dying"
 http://thenewdaily.com.au/news/national/2017/10/13/fake-cannabis-oil-dealers/

THE STATE OF NEW MEXICO AND CANNABIS TESTING

We opened Steep Hill New Mexico in 2015 at the encouragement of the Department of Health. We were encouraged by their assertiveness in complying with the legislative mandate to set testing limits and we were happy to help.

Assessment of the current situation two years later (2017):

- The State of New Mexico purchased equipment to enforce laboratory required testing in 2015. To our knowledge, the State has not used this equipment to confirm the accuracy of tests of any products on the dispensary shelves.
- There is great concern about the State of New Mexico's reporting in its BioTrack system and follow up analysis of the data. Evidence presented in this packet shows that the BioTrack values for test results do not match the values of products that were retested from dispensary shelves.
- At the request of patient groups, Steep Hill has been testing labeled products brought to the lab. The results do <u>not</u> match the labels (see attached Steep Hill charts).
- NM has the most restrictive microbial requirements on record. This is something about which Steep Hill has spoken to the NM DOH at length. The CFU thresholds should be increased to be in line with the AHP and other states. There needs to be a proper combination of testing results that allows balancing threshold limits without the need for onerous limits to artificially ensure safety.
- In April, a patient came in complaining of bleeding lips, vomiting, bloody noses, and passing out. Passing out has been seen in another case dealing with pesticide-laden Cannabis. We sent a sample to the State Department of Health, on the patient's behalf, and have not heard back. It should be noted that

- pesticides are concentrated when extracts are made from flower and thus even more dangerous to patient's health.
- Even though not mandated, Steep Hill will be bringing pesticide testing to New Mexico in the next couple of weeks. This is not a regulated test in NM, but we will offer the service because we feel strongly about patient safety, and have concerns about information being received from the patients.
- In talking with producers and dispensary owners who are using best practices for patients, we hear that there are lax processes throughout the grower supply in New Mexico, and few if any safeguards, follow up checks, or enforcement actions.

SUGGESTED SOLUTIONS FOR NEW MEXICO

- The State of New Mexico must enforce its own regulations—it is not enough to have them on record. The regulations must be followed up with checks from a third-party lab, a state lab, and/or a secret shopper program.
- The State of New Mexico must look at pesticide regulation. We know New Mexico has a pesticide problem and the time to fix it is now.
- The pesticide problem must be addressed as quickly as possible. Data we have produced from other states shows a majority of randomly chosen samples has detectable levels of pesticide, including the clones. As a community, we must avoid the same kind of environmental disaster seen elsewhere we have the possibility of saving New Mexico now.
- The State of New Mexico should consider final product testing, because testing the final product is the only way to ensure the safety and accuracy of the products consumers are purchasing.
- Pesticides are hazardous they kill beneficial organisms. Regulators must know that people are being harmed and we appeal to you as legislators to "do no harm."
- The best regulations in the world don't work without enforcement.
- Pesticides must be tracked by the state, must be reviewed, and must be enforced.

Steep Hill is ready to help. We welcome your questions and would like to work together toward solutions.

Secret Shopper Results Steep Hill New Mexico

Sample ID	Strain Name	Producer	Labeled Laboratory	Labeled Potency	Actual Potency	Labeled Potency Actual Potency Percentage Overstated	Microbial (Biotrack) Actual Microbial Total Aerobic/ Yeast&Mold/ Enterobacteria/ Ecoli.Salmonella	Actual Microbial terobacteria/ Ecoli.Salmonella	Biotrack Entry
NM29405	Zak Haze	0 AM Lot: 1025 9770 6255 4311 (Sample: 2368 1025 9770 6255 4311 (Sam5 9770 6255 4311)	8 1025 9770 6255 4311 (San	n5 9770 6255 4311 (9770 6255 4311	1025 9770 6255 4311 (Sam	977C 6255 4311 1025 9770 6255 4311 (Sam/Lot: 1025 9770 6255 4311 (Sample: Lot: 1025 9770 6255 4311 (Sample:	Lot: 1025 9770 6255 4311 (Sample:	5/24/2017 8:39:00 AM Lot: 1025 9770 6255 4311 (Sample: 2368 2523 6362 6204)
NM29406	Tahoe OG	Organtica	Scepter Labs*	28.72%	19.50%	47.28%	0/0/0/0	0/0/0/0	4/5/2017 10:26:00 AM Lot: 4656 4898 0535 7490 (Sample: 6381 0653 9110 6358)
NM29407	Santa Muerte x Polar Bear OG	Urban Wellness	Scepter Labs	28.39%	23.00%	23.43%	0/0/0/0	210/6,300/0/0	7/6/2017 11:30:00 AM Lot: 6852 0360 2036 6406 (Sample: 0850 8942 0137 9789)
NM29408	3 Pac	Urban Wellness	Scepter Labs	23.23%	23.00%	1.00%	0/0/0/0	0/200/0/0	6/15/2017 9:43:00 AM Lot: 1590 4249 2618 7118 (Sample: 2597 5382 3455 6049)
NM29409	Sexxpot Flower	CG Corrigan	Scepter Labs	20.30%	17.10%	18.71%	0/0/0/0	15,300/750/0/0	7/15/2017 3:53:00 PM Lot: 2825 7114 7069 4648 (Sample: 7755 7587 3661 3081)
NM29411	Star Dawg	Natural RX	Scepter Labs	23.76%	18.40%	29.13%	0/0/0/0	220/7,500/0/0	6/5/2017 2:26:00 PM Lot: 6219 4465 5649 0023 (Sample: 5459 2065 9133 3027)
NM29412	Presidential Kush	Natural RX	Scepter Labs	23.51%	13.90%	69.14%	0/100/200/0	0/0/0/0	2/16/2017 4:59:00 PM Lot: 1550 6362 9459 6115 (Sample: 7232 4584 6252 6994)
NM29413	Star Dawg OG	Seven Clover	Scepter Labs	23.32%	15.70%	48.54%	0/0/0/0	0/590/0/0	3/28/2017 6:43:00 PM Lot: 7326 7361 7332 2528 (Sample: 8671 8851 0232 4869)
NM29414	Incredible Hulk	Seven Clover	Scepter Labs	24.46%	17.00%	43.88%	100/300/100/0	0/0/0/0	4/4/2017 1:57:00 PM Lot: 0051 9139 6994 9887 (Sample: 6739 0596 8100 0704)
NM29415	Cotton Candy	PurLife	Scepter Labs	27.21%	30.00%	-9.30%	100/900/0/0	0/104/0/0	4/8/2017 11:19:00 AM Lot: 0217 1924 8799 9198 (Sample: 7728 5446 0064 0164)
NM29416	Stardawg Guava	PurLife	Scepter Labs	29.00%	23.00%	26.09%	0/0/0/0	230/0/0	6/26/2017 4:09:00 PM Lot: 2593 1712 7860 7037 (Sample: 4188 4491 5932 2970)
NM29419	Jack Herer	Sandia Botanicals	Scepter Labs	25.03%	24.00%	4.29%	0/0/0/0	0/50,000/0/0	7/10/2017 10:43:00 AM Lot: 2970 6650 8511 3993 (Sample: 5047 1196 4190 5647)
NM29420	King Louis XIII	Sandia Botanicals	Scepter Labs	24.32%	23.00%	5.74%	0/0/0/0	0/159,000/0/0	5/8/2017 10:43:00 AM Lot: 2393 2295 6996 1408 (Sample: 3989 1134 3533 9547)
NM29421	White Rhino	Cannaceutics	Scepter Labs	Not on Package	13.20%		0/0/0/0	0/0/0/0	5/15/2017 10:51:00 PM Lot: 8253 1758 3327 1178 (Sample: 9370 4614 2077 8213)
NM29423	Skywalker OG	R.Greenleaf	Scepter Labs	27.92%	28.00%	-0.29%	Not Found in Biotrack	0/94,000/0/0	Not Found
NM29424	Warlock	R.Greenleaf	Scepter Labs	25.27%	26.00%	-2.81%	Not Found in Biotrack	0/0/0/0	Not Found
NM29425	Tomahawk Mid Shelf	Everest Apothecary	Scepter Labs	17.12%	16.00%	7.00%	300/100/0/0	3,900/0/0	4/20/2017 7:50:00 AM Lot: 6990 9236 5030 5586 (Sample: 0686 9686 7355 4909)
NM29426	Guard Dawg x Star Dawg Mid	Everest Apothecary	Scepter Labs	11.84%	15.20%	-22.11%	700/200/0/0	3,700/103/0/0	4/20/2017 7:43:00 AM Lot: 3637 0956 9972 5693 (Sample: 8560 9355 7751 0574)
NM29427	The Sauce	Minerva Canna	Scepter Labs	29.83%	13.70%	117.74%	0/0/0/0	0/230,000/0/0	4/28/2017 10:09:00 AM Lot: 5572 2125 3300 6842 (Sample: 8715 7244 1940 3426)
NM29428	Nightmare Cookies	Minerva Canna	Rio Grande Analytics	25.79%	21.00%	22.81%	0/0/0/0	0/3,600/0/0	4/28/2017 9:59:00 AM Lot: 4560 9876 7399 3592 (Sample: 5674 3846 2199 9806)
NM29429	Platinum Delights Bud	High Desert Relief	Scepter Labs	28.46%	18.60%	53.01%	0/0/0/0	0/0/0/0	6/20/2017 3:17:00 PM Lot: 1305 1569 1972 7147 (Sample: 4663 6998 0698 7013)
NM29430	Louis XIII Bud	High Desert Relief	Scepter Labs	28.13%	25.00%	12.52%	0/0/0/0	106/0/0/0	6/20/2017 3:21:00 PM Lot: 0312 7923 2608 2111 (Sample: 7733 9374 1621 5134)
NM29483	Power Nap T1	Ultra Health	Scepter Labs	20.51%	21.00%	-2.33%	2300/0/0	50,000/780/0/0	6/2/2017 9:14:00 AM Lot: 3940 1615 9752 3066 (Sample: 2454 1363 1232 7773)
NM29484	Green Crack T1	Ultra Health	Scepter Labs	22.64%	16.30%	38.90%	Not Found in Biotrack	430/0/0/0	Not Found
NM29485	707 Headband	Shift NM	Scepter Labs	22.93%	22.00%	4.23%	100/0/0/0	0/380/0/0	5/24/2017 10:41:00 AM Lot: 7046 5630 7728 3343 (Sample: 2264 9211 9559 4631)
NM29486	Stardawg	Shift NM	Scepter Labs	26.03%	22.00%	18.32%	100/0/0/0	0/200/0/0	6/12/2017 12:59:00 PM Lot: 0486 1028 6432 5569 (Sample: 9000 6239 6942 6303)
NM29487	Headband	Fruit of the Earth Organics	Scepter Labs	26.94%	21.00%	28.29%	0/300/0/0	10,900/21,000/0/0	4/19/2016 9:10:00 AM Lot: 5415 1433 5557 0944 (Sample: 1113 0046 0214 6033)
NM29488	Banana Split	Fruit of the Earth Organics	Scepter Labs	29.00%	21.00%	38.10%	0/0/0/0	19,200/89,000/61,000/0	5/3/2017 9:17:00 PM Lot: 8525 7906 3067 4094 (Sample: 2536 7699 9943 0925)
NM29489	Lily Koi	Sacred Garden (Harvest Foundation)	Scepter Labs	25.99%	22.00%	18.14%	0/0/0/0	0/230/0/0	3/16/2017 3:02:00 PM Lot: 7004 3300 4198 4294 (Sample: 0324 3830 0141 4147)
NM29490	Gorilla Glue #4	Sacred Garden (Harvest Foundation)	Scepter Labs	27.50%	21.00%	30.95%	0/300/0/0	200/810/0/0	3/16/2017 3:11:00 PM Lot: 4658 4486 7221 3272 (Sample: 1133 6063 8796 7686)
NM31702	Jamoka	Mother Earth Herbs Albuquerque	Not Labeled	26.44%	12.10%	118.51%	0/0/0/0	100/100/0/0	4/29/2017 5:11:00 PM Lot: 7843 4199 9468 6501 (Sample: 8487 0316 3013 9715)
71702		Mother Dorth Harby Albumarana	Not Labeled	23 46%	14 00%	67.57%	0/0/0/0	0/67.000/0/0	7/12/2017 7:13:00 PM Lot: 2082 1836 2030 0000 (Sample: 6563 9210 0947 3832)

*Denotes that packaging is mislabeled that Steep Hill tested the product when it did not



Steep Hill New Mexico Secret Shopper **Patient Information**

NM32946	NM32948	NM32944	NM32947	NM32807	NM32808	NM32834	NM32833	NM32855	NM32856	NM32857	NM32891	NM32888	NM32890	NM32889	NM32302	NM32264	NM32262	NM32261			Sample ID
Hells Fire #2	Maxi #4	Silver Kush	Chem Sis	Elephant Stomper	Doc Holiday	Star Bud	Shut Eye X Star Dawg	Buddha Tahoe	Star Dawg	King Louie 13th	Purple Kush X Copper Chem	Jelly Breath T1	Sour Grapes	Platinum Gorilla T1	Gorilla Wreck #4	Spec Ops (Pre-Roll)	Messenger (Pre-Roll)	Green Crack (Pre-Roll)			Strain Name
PurLife	Sacred Garden/Harvest Foundation	RGreenleaf	Organtica	Urban Wellness	Urban Wellness	Minerva Canna	Everest Apothecary	RGreenleaf	Natural Rx	Natural Rx	MJ Expresso	Ultra Health	MJ Expresso	Ultra Health	High Desert Relief	Sacred Garden	Sacred Garden	Sacred Garden			Producer
Not Labeled	Not Labeled	Not Labeled	Scepter Labs *	Scepter Labs	Scepter Labs	Scepter Labs	Not Labeled	Not Labeled	Scepter Labs	Scepter Labs	Not Labeled	Scepter Labs	Not Labeled	Scepter Labs	Scepter Labs	Scepter Labs	Scepter Labs	Scepter Labs			Labeled Laboratory
28.30%	24.00%	25.14%	23.98%	28.28%	26.26%	27.76%	20.78%	26.77%	26.34%	24.39%	14.60%	21.02%	20.00%	18.58%	26.28%						Labeled Potency
21.00%	24.00%	22.00%	18.50%	24.00%	25.00%	21.00%	19.40%	23.00%	9.80%	24.00%	14.60%	16.30%	24.00%	16.20%	24.00%						Steep Hill Express
34.76%	0.00%	14.27%	29.62%	17.83%	5.04%	32.19%	7.11%	16.39%	168.78%	1.63%	0.00%	28.96%	-16.67%	14.69%	9.50%						Percentage Overstated
•	,	•	1	•	,	•	1	•	1	•	1		1		ı	320,000/78,000/106/0	270,000/45,000/0/0	0/22,000/0/0		Total Aerobic/ Yeast&Mold/ Enterobacteria/ Ecoli&Salmonella	Actual Microbial
																		when consumed via inhilation	Patient complaints of headaches	robacteria/ Ecoli&Salmonella	

*Denotes that packaging is mislabeled that Steep Hill tested the product when it did not

