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Dear Ms. Stenquist and To Whom It May Concern,

I am a board-certified neurologist and psychopharmacology researcher (please see appended CV and bio), who has been asked to comment on safety and policy issues in Utah pertaining to synthetic cannabinoids.

Although I do not recommend banning such substances, as prohibition of these and other compounds has proven ineffective and often counter-productive, I do feel that synthetic cannabinoids should be excluded from state-sponsored sales.

Very simply, while delta-8, delta-6 and delta-10-tetrahydrocannabinol (THC) isomers can be found in herbal cannabis, it is usually in trace amounts. Their occurrence in that context is probably safe for human use at low doses. In contrast, many products available in commerce contemporaneously are synthetically manufactured, usually from cannabidiol, and often appear in doses that would never be found in natural products. It is possible to make a blanket assertion that all products with delta-8-THC content of significant concentrations are contaminated with delta-6-, delta-10-THC, possibly other isomers, and residual solvents, making them public health risks. To date, no formal studies of delta-6-THC or delta-10-THC have been done with respect to their toxicology (poison potential), pharmacokinetics (appearance and breakdown in the body), let alone their pharmacodynamic effects in humans.

As such, it is my formal professional opinion that all cannabis-based products sold in Utah and elsewhere should be accompanied by a certificate-of-analysis (COA) on each batch of material, and that no synthetic cannabinoids should be endorsed for commerce by any state agency.

Sincerely,



Ethan B. Russo, MD