

with Chuck McGlasson, then Chief Nursing Officer of Baptist Tipton, and Myra Cousar, Director of Human Resources at Baptist Tipton, during which McGlasson and Cousar asked Plaintiff if he had been keeping a “super tonic” in his locker. Plaintiff admitted that he had.

After the meeting, Defendant Baptist Tipton submitted the “super tonic” for an alcohol test, and the results revealed that Plaintiff’s “super tonic” had an alcohol content of 23.9%. Super tonic consists of garlic, onion, cayenne pepper, ginger, horseradish, apple cider vinegar, and eighty proof vodka with the liquid ingredients consisting of one third apple cider vinegar and two thirds vodka. On April 11, 2007, Plaintiff was terminated for possession of alcohol on Baptist Tipton’s premises, a violation of its Fitness for Duty Policy.

At trial, Plaintiff seeks to introduce the expert testimony of John S. Markowitz, a Pharm. D. The Plaintiff contends that Markowitz, relying on biomedical literature, will testify that (1) super tonic is not alcohol and (2) that super tonic, a tincture-like substance, is not intended for social drinking, but rather medicinal use.

In the instant Motion before the Court, the Defendants contend that Markowitz’s testimony is unscientific, unreliable, and prejudicial, and thus should be excluded pursuant to *Daubert v. Merrell Dow Pharmaceuticals, Inc.* More specifically the Defendants assert that Markowitz’s opinion is unscientific because he did not employ the scientific method in reaching his conclusion that super tonic is not alcohol. For instance, the Defendants note that Markowitz did not produce super tonic or have any in his possession when making his determinations. Markowitz instead relied on literature. Defendants also assert that since Markowitz did not employ the scientific method his conclusions are unreliable and are not in accordance with the *Daubert* factors. Finally, the Defendants contend that Markowitz’s testimony will create a

confusion of the issues.

In response, the Plaintiff asserts that Markowitz's opinions are empirically verifiable. He contends that based on the harsh taste and quantity of the herbs in super tonic, Markowitz determined that super tonic was not intended for social consumption. The Plaintiff notes that Markowitz's characterization of super tonic as "tincture-like" is based on the definition of tincture, his own training in compounding, and literature. The Plaintiff also contends Markowitz's analysis did not require the scientific method. Finally, the Plaintiff asserts that Markowitz's testimony will not confuse the jury because he will not be testifying about the definition of alcohol as defined by the Fitness for Duty Policy.

ANALYSIS

RULE 702 and DAUBERT

Federal Rule of Evidence 702 provides:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.²

Thus, the rule clearly contemplates some degree of regulation of the subjects and theories about which an expert may testify.³ In *Daubert*, the Supreme Court held that Rule 702 imposes a "gatekeeping" obligation upon the trial court to ensure expert testimony "is not only relevant, but

² Fed. R. Evid. 702.

³ *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 589 (1993).

reliable.”⁴ This gatekeeping function applies to testimony regarding technical or other specialized knowledge, and not just to scientific testimony.⁵ A trial court is required to inquire as to whether the methodology underlying the proffered expert testimony is valid and whether the methodology may be properly applied to the facts at issue in a particular case.⁶ Additionally, the Supreme Court identified several factors to aid the reliability assessment including: (1) whether the theory or technique can be or has been tested; (2) whether the theory has been subject to peer review and publication; (3) the known or potential rate of error; and (4) whether the theory or technique is generally accepted by the scientific community.⁷

Daubert requires a two-step inquiry that analyzes the “relevance and reliability” of an expert’s opinion.⁸ During the relevance step, the court is to ensure that “there is a ‘fit’ between the testimony and the issue to be resolved by the trial.”⁹ During the reliability step, the court focuses on the “methodology and principles” that form the basis for the expert’s testimony.¹⁰ The court is to examine the reliability of the methodology and principles underlying the testimony, not on the reliability of the conclusions reached by the expert because “if the principles, methodology and reasoning are scientifically valid then it follows that the inferences,

⁴ *Id.*

⁵ *Kumho Tire v. Carmichael*, 526 U.S. 137, 141 (1999)(The obligations imposed on a trial judge by *Daubert* extends to all expert testimony.)

⁶ *Daubert*, 509 U.S. at 592-593.

⁷ *Id.* at 593-94.

⁸ *Greenwell v. Boatwright*, 184 F.3d 492, 496 (6th Cir. 1999).

⁹ *Id.* (citing *United States v. Bonds*, 12 F.3d 540, 555 (6th Cir. 1993)).

¹⁰ *Id.*

assertions, and conclusions derived therefrom are scientifically valid as well.”¹¹

As to the relevancy step, the Court finds that Markowitz’s opinion is potentially relevant to the case at bar. Here, the Plaintiff was terminated for “possession of alcohol” under Defendants’ Fitness for Duty Policy. The policy, however, does not define the term “alcohol.” As such, Markowitz’s opinion arguably might be helpful to the jury’s characterization of super tonic. The Court notes that it would be improper for Markowitz to define “alcohol” under the terms of Defendants’ policy. The Court, however, need not reach this determination because his opinion is not sufficiently reliable as required by Rule 702 and the *Daubert* factors.

Markowitz is undoubtedly an expert in pharmacology. He holds a Doctorate in Pharmacy, is board certified in Psychiatric Pharmacy, and is currently a professor in the Department of Pharmaceutical & Biomedical Sciences at the Medical University of South Carolina.¹² To qualify as an expert under Rule 702, however, a witness must first establish his expertise by reference to “knowledge, skill, experience, training, or education.” The issue is not the witness’s qualifications in the abstract, but whether those qualifications provide a foundation for a witness to answer a specific question.¹³

Markowitz asserts that super tonic is “tincture-like in nature rather than an alcoholic ‘cocktail’ of some type.”¹⁴ He also opines that super tonic, as described by Plaintiff, is intended

¹¹ Id. at 497 (quoting *Bonds*, 12 F.3d at 556).

¹² Exhibit 2 to Pl.’s Resp. in Opp. to Defs.’ *Daubert* Mot., 1.

¹³ *Berry v. City of Detroit*, 25 F.3d 1342, 1351 (6th Cir. 1994).

¹⁴ Exhibit 2 at 2.

for “medicinal use and would be unfit for beverage purposes.”¹⁵

In his deposition, Markowitz testified that in reaching his opinion he never possessed or made any super tonic, but rather he relied solely on Plaintiffs counsel’s description and directions.¹⁶ Markowitz also testified that he has never conducted any experiments on super tonic,¹⁷ experimented with vodka as a solvent for herbs,¹⁸ or been personally involved in making tinctures.¹⁹ Markowitz, however, has had experience in compounding and the production of elixirs in pharmacy school.²⁰

Additionally, as noted above, Markowitz opines that super tonic is intended for medicinal use. His report, however, fails to indicate what medicinal purpose super tonic serves or the specific basis of this assertion. The only possible explanation Markowitz provides is a conclusion that:

many of the ingredients contained in “super tonic” such as garlic, cayenne pepper, ginger root, and horseradish, do contain botanical constituents which have been, and continue to be, the subject of scientific investigation for their potential merit in the treatment of a number of this individual’s physical ailments described (e.g. garlic for elevated cholesterol and garlic and cayenne pepper for arthritic conditions).²¹

Markowitz, however, does not provide any further elaboration.

¹⁵ *Id.* at 3.

¹⁶ Markowitz Dep. 133:15-16 (Oct. 22, 2009).

¹⁷ Markowitz Dep. 38:13-14.

¹⁸ Markowitz Dep. 144:1-3.

¹⁹ Markowitz Dep. 96:21-22.

²⁰ Markowitz Dep. 96:10-14.

²¹ Exhibit 2 at 2.

As a general matter, the Court finds that Markowitz is arguably not qualified to testify as to the nature of super tonic or its intended medicinal use based solely on the language of Rule 702. Markowitz has no knowledge, skill, or experience with super tonic or tinctures generally. In fact, Markowitz has never even possessed super tonic but rather has relied on Plaintiffs counsel's description to derive his conclusions. While Markowitz is undisputedly an expert in pharmacology, there is no indication from the record that he has conducted any experimentation on super tonic or any tincture or elixir similar to that of super tonic.

Additionally, as to Markowitz's determination that super tonic is intended for medicinal use rather than social alcohol consumption, the Court finds it curious that he provides no real explanation as to what the medicinal use might be other than to suggest garlic and cayenne pepper may alleviate arthritis. Vague generalizations such as this provide the Court with no indication of how his conclusion was reached.

However, even assuming that Markowitz possesses the requisite knowledge, skill, experience, training, or education under Rule 702, Markowitz's opinion fails to meet any of the *Daubert* factors. As noted above, in determining whether an expert's testimony is sufficiently reliable, the Court is to examine such factors as (1) whether a theory or technique can be or has been tested; (2) whether the technique has been subjected to peer review and publication; (3) the known or potential rate of error; and (4) whether the theory or technique is generally accepted by the scientific community.

Here, Markowitz primarily seems to contend that (1) super tonic is not alcohol and (2) that super tonic is intended for medicinal use. Markowitz, however, admittedly conducted no experiments on super tonic to reach this conclusion. Markowitz also fails to cite any literature

that specifically or similarly supports his assertions. Instead, Markowitz cites to general literature involving the science of pharmacy, supplements and botanicals, garlic, and alternative medicine. None of these articles appear to denote that super tonic is not alcohol or that super tonic has a medicinal quality.

Since Markowitz has not conducted any experimentation on super tonic, it is undisputed that he has not tested whether super tonic is intended for medicinal use or that it is the equivalent of a tincture, rather than an alcoholic beverage. The Court, however, admits that Markowitz did testify that he is familiar with the definition of a tincture and as such that may be the basis of his opinion. Markowitz also has not relied on any other studies or scientific literature involving super tonic or tinctures with similar herbal ingredients to form his opinion. There is no indication in the record that his opinion has been subjected to peer review, what the potential rate of error is, or his opinion's acceptance in the scientific community. As such, the Court finds that Markowitz's testify is not sufficiently reliable as required by *Daubert* and must be excluded.

CONCLUSION

For the reasons set forth above, Defendants' Motion to Exclude the Testimony of Plaintiff's Expert John S. Markowitz is **GRANTED**.

IT IS SO ORDERED.

s/ S. Thomas Anderson
S. THOMAS ANDERSON
UNITED STATES DISTRICT JUDGE

Date: May 13th, 2010.