

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

CESAR MARTINEZ and)	
ALANZO RODRIGUEZ,)	
)	
Plaintiffs,)	Case No.: 07-cv-422
)	
v.)	Judge Robert M. Dow, Jr.
)	
CITY OF CHICAGO, et al.)	
)	
Defendants.)	

MEMORANDUM OPINION AND ORDER

Plaintiffs Cesar Martinez and Alonzo Rodriguez brought this action pursuant to 42 U.S.C. § 1983 against Defendants City of Chicago, and Chicago police officers Martin Acevedo, Javier Avalos, and Mario Sanchez (collectively “Defendants”). This matter is before the Court on Plaintiffs’ motion to strike Defendants’ gang identification expert [115] and Plaintiffs’ motion to bar Defendants’ toxicology expert [119]. For the reasons stated below, Plaintiffs’ motion to strike Defendants’ gang identification expert is denied and Plaintiffs’ motion to bar Defendants’ toxicology expert is granted in part.

I. Background

This case arises out of a May 17, 2005 traffic stop involving Plaintiffs and two Chicago police officers – Defendants Acevedo and Avalos. The facts surrounding that traffic stop are hotly disputed, but the parties agree that there was a physical altercation involving Officers Acevedo and Avalos, Plaintiffs, and a third man, Jose Garcia, after which all five men needed medical attention. It also is undisputed that Plaintiffs were arrested following the confrontation, were charged with multiple counts of felony aggravated battery of a police officer, and were

acquitted of all charges following a 2007 criminal trial. In January 2007, Plaintiffs filed the instant civil suit, asserting, *inter alia*, Section 1983 false imprisonment and excessive force claims.

The parties conflicting accounts of the May 17, 2005 incident are relevant to the Court's resolution of Plaintiffs' motions. Therefore, the Court will briefly summarize each side's version of events.

Plaintiffs contend that they were in a car with a friend, Jose Garcia, on the evening of May 17, 2005, when Rodriguez, the driver, took a wrong turn onto a dead-end street where Defendants Acevedo and Avalos were parked in their squad car. According to Plaintiffs, the officers stopped Plaintiffs' vehicle, exited their vehicle with guns drawn, forcibly removed Plaintiffs from the car, beat them, and placed them under arrest. Plaintiffs characterize this as "a conventional and (unfortunately) common Chicago police 'beat-up case.'"

According to Defendants, it was Plaintiffs and Garcia who instigated the physical confrontation, not the officers. Defendants claim that Officers Acevedo and Avalos were on their lunch break in a dead-end street when they observed Plaintiffs' car speeding, weaving, and entering private property. The officers stopped Plaintiffs, suspecting that the driver was impaired. Defendants maintain that Rodriguez jumped out of his vehicle and attacked Acevedo. While Avalos tried to subdue Rodriguez, Acevedo approached the car and told Garcia to "show me your hands." When Garcia refused, Acevedo pulled him out of the car through the passenger window, and the two began to struggle on the ground. At that point, Martinez got out of the car and jumped Acevedo from behind. Eventually, with the help of additional officers who responded to Defendants' calls for assistance, Rodriguez, Garcia and Martinez were physically subdued and taken into custody.

It is undisputed that Plaintiffs then were taken to the hospital, at which time blood samples were collected from Plaintiff Rodriguez. An analysis of Rodriguez's blood sample that was taken approximately four hours after the incident with the officers showed a concentration of less than 2.5 micrograms per liter of morphine.

Plaintiffs seek to exclude in its entirety the testimony of Bruce Malkin, a proposed expert witness retained by Defendants in this matter to testify regarding gangs and gang identification. Plaintiffs also seek to exclude certain testimony of Defendant's proposed toxicology expert, Daniel J. Brown, Ph. D. The Court will address each of Plaintiffs' motions in turn.

II. Motion to Exclude Testimony of Proposed Gang Identification Expert

A. Malkin's Opinion

Defendants' proposed gang identification expert, Bruce Malkin, has been a police officer in the City of West Chicago for 30 years, and currently is the deputy chief of patrol operations for the West Chicago Police Department. Between 1997 and 2007, Malkin served as the commander of the West Chicago Police Department's Street Operations Unit. During that time, his duties included developing gang-related prevention strategies, as well as intelligence gathering and enforcement activities regarding street gangs operating in and around Chicago. Over the past 10 years, Malkin has trained over 1500 police officers about Hispanic street gangs. Malkin also is an active member of the DuPage County State's Attorney Office "Task Force on Gangs," and has been qualified as an expert witness on street gang identification in the 18th Judicial Circuit of Illinois.

In his expert report, Malkin opines that Plaintiffs are members of a street gang known as the Surenos. Malkin bases that opinion largely on Plaintiffs' tattoos, which he says represent membership in the gang. Malkin also opines that Defendants' account of Plaintiffs' actions on

May 17, 2005 – namely, committing an unprovoked attack on police officers – is consistent with Plaintiffs’ gang affiliation. For this opinion, Malkin relies on his law enforcement experience with the Surenos, during which Sureno gang members often would try to fight him, as well as on his general knowledge that gang culture often requires members to participate in illegal activity to achieve gang membership and respect.

Plaintiffs seek to exclude Malkin’s proposed testimony on two grounds: (1) Plaintiffs’ alleged gang affiliation is not an issue in this case, and therefore Malkin’s testimony will not “assist the trier of fact to understand the evidence or to determine a fact in issue,” as required by Rule 702 of the Federal Rules of Evidence; and (2) testimony regarding Plaintiffs’ alleged gang affiliation should be excluded under Federal Rule of Evidence 403 because any probative value it may have is substantially outweighed by the danger of unfair prejudice.

B. Rule 702

The admissibility of expert testimony is governed by Federal Rule of Evidence 702 and *Daubert v. Merrell Dow Pharms., Inc. Ervin v. Johnson & Johnson, Inc.*, 492 F.3d 901, 904 (7th Cir. 2007) (citing *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579 (1993)). Rule 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.

FED. R. EVID. 702. Under the framework established by Rule 702 and *Daubert*, courts must determine whether proposed expert testimony is both relevant and reliable. *Ervin*, 492 F.3d at 904. The determination involves a three-step analysis: (1) the witness must be qualified “as an

expert by knowledge, skill, experience, training, or education;” (2) the expert’s reasoning or methodology underlying the testimony must be scientifically reliable; and (3) the testimony must assist the trier of fact to understand the evidence or to determine a fact in issue. *Id.* (citing FED. R. EVID. 702); see also *Daubert*, 509 U.S. at 592-93. “The proponent of the expert bears the burden of demonstrating that the expert’s testimony would satisfy the *Daubert* standard.” *Lewis v. CITGO Petroleum Corp.*, 561 F.3d 698, 705 (7th Cir. 2009). District judges possess considerable discretion in dealing with expert testimony. *Carroll v. Otis Elevator Co.*, 896 F.2d 210, 212 (7th Cir. 1990); see also *General Elec. Co. v. Joiner*, 522 U.S. 136, 141-43 (1997) (holding that abuse of discretion standard applies in reviewing district court rulings on admissibility of proposed Rule 702 opinion testimony).

1. *Whether Malkin is qualified*

Although Plaintiffs do not explicitly argue that Malkin is not “qualified” as that term is used in Rule 702, they do question Malkin’s credentials. According to Plaintiffs, Malkin is from “a small suburb in DuPage County” and has never testified as an expert. That Malkin’s law enforcement experience is suburban does not discredit him as an expert in this case. As Defendants note, Plaintiffs lived in the suburbs. Moreover, Malkin has had significant experience with the Surenos and other gangs, which apparently operated, at least in part, in the suburbs that Malkin patrolled. Similarly, the fact that Malkin previously has not provided expert testimony does not render him unqualified. Plaintiffs have cited no precedent indicating that an expert witness must have prior experience testifying in court in order to be qualified to give expert testimony.¹ The Court concludes that a deputy chief of police with 30 years of law

¹ To the extent that the case law indicates any concerns on the basis of the amount of prior experience testifying in court, the concerns have focused on too much, not too little, prior courtroom experience. See, e.g., *Tyus v. Urban Search Mgmt.*, 102 F.3d 256, 263 (7th Cir. 1996) (“In all cases, however, the district court must ensure that it is dealing with an expert, not just a hired gun”).

enforcement experience, at least 10 of which was focused on prevention of gang-related crimes, who is certified to train police officers about Hispanic street gangs and sits on the DuPage County State's Attorney Office "Task Force on Gangs," is qualified by knowledge, skill, experience, training and education to present Rule 702 opinion testimony in this case.

2. *Whether Malkin's opinions are reliable*

Plaintiffs do not argue that Malkin's opinions are not sufficiently reliable, and therefore the Court need not address this prong.

3. *Whether Malkin's opinions will assist the trier of fact*

Finally, Rule 702 bars the admission of Malkin's proffered expert opinions unless they will assist the trier of fact in understanding the evidence or determining a fact in issue. In order to satisfy this "helpfulness" requirement, expert testimony must satisfy two elements. First, the proffered testimony must relate to a fact in issue: "expert testimony which does not relate to an issue in the case is not relevant, and, ergo, non-helpful." *Porter v. Whitehall Laboratories, Inc.*, 9 F.3d 607, 613 (7th Cir. 1993) (quoting *Daubert*, 509 U.S. at 591). Here, Defendants contend that Plaintiffs, without provocation, attacked two armed police officers. Defendants' theory is that Plaintiffs were motivated by their gang affiliation, which rewards criminality, and by their desire to prove their worth as gang members to Garcia, a more established gang member. Thus, Plaintiff's alleged gang affiliation goes to the heart of Defendants' theory of the case. Malkin's opinions concern Plaintiffs' membership in the Surenos, and the value gangs generally place on criminality. Accordingly, this Court finds that Malkin's opinions are relevant to facts in issue.

Second, the proffered testimony must assist the fact finder in understanding what otherwise might be outside its grasp. See *S.E.C. v. Lipson*, 46 F.Supp.2d 758, 763 (N.D. Ill. 1998); *Sommerfield v. City of Chicago*, 254 F.R.D. 317, 329 (N.D. Ill. 2008) ("Expert testimony is helpful to the jury if it concerns a matter beyond the understanding of the average person.").

The average juror is unlikely to be familiar with the kinds of tattoos associated with members of the Surenos gang, or with gang culture generally. Therefore, the Court finds that Malkin's testimony will aid the jury's determination as to whether Plaintiffs were gang members, and how that affiliation may have influenced their interaction with the Defendant officers.

C. Rule 403

"[A] judge assessing a proffer of expert * * * testimony under Rule 702 should also be mindful of other applicable rules," including Rule 403. *Daubert*, 509 U.S. at 595. Rule 403 permits the exclusion of otherwise relevant evidence "if its probative value is substantially outweighed by the danger of unfair prejudice * * *." FED. R. EVID. 403. Therefore, despite the fact that it meets the requirements of Rule 702, Malkin's testimony nevertheless may be excluded if its probative value is substantially outweighed by its prejudicial effect, as Plaintiffs contend.

The Seventh Circuit has "long recognized that gang membership has probative value under appropriate circumstances," *U.S. v. Lewis*, 910 F.2d 1367, 1372 (7th Cir. 1990) – for example, to show motive, bias, or the existence of a conspiracy. See *United States ex rel. Hairston v. Warden*, 597 F.2d 604, 607-08 (7th Cir. 1979) (evidence of gang membership admissible to show motive for murder); *United States v. Montgomery*, 390 F.3d 1013 (7th Cir. 2004) (evidence of gang membership admissible to show defendant's motive for carrying a weapon); *Clark v. O'Leary*, 852 F.2d 999 (7th Cir. 1988) (witness' membership in rival gang admissible for purposes of impeachment to show bias); *U.S. v. Suggs*, 374 F.3d 508, 517 (7th Cir. 2004) (evidence of defendants' gang affiliation admissible to show existence of a conspiracy); *United States v. Hattaway*, 740 F.2d 1419, 1425 (7th Cir. 1984) (evidence of motorcycle gang's lifestyle admissible to provide accurate description of kidnapping victim's

“ordeal”). Similarly, in *United States v. Abel*, 469 U.S. 45, 49 (1984), the Supreme Court held that evidence demonstrating gang membership was “sufficiently probative of * * * possible bias towards respondent to warrant its admission into evidence.”

Here, Plaintiffs’ alleged gang affiliation provides probative circumstantial support for Defendants’ theory of the case: that Plaintiffs were motivated to attack the Defendant Officers by their gang affiliation. See *Suggs*, 374 F.3d 508 (evidence of gang affiliation, including expert testimony, admissible to support government’s theory of the case that the indicted individuals had engaged in a conspiracy to distribute crack). Having concluded that Malkin’s testimony is probative and relevant, the Court must determine whether its probative value is substantially outweighed by the danger of unfair prejudice.

“Evidence is unfairly prejudicial ‘if it will induce the jury to decide the case on an improper basis, commonly an emotional one, rather than on the evidence presented.’” *U.S. v. Thomas*, 321 F.3d 627, 630 (7th Cir. 2003) (citation omitted). “The balancing of probative value and prejudice is a highly discretionary assessment.” *Id.* Here, Malkin opines that Plaintiffs’ tattoos are identifying symbols of the Surenos and indicate membership in the Surenos.

The Seventh Circuit has found tattoos showing gang affiliation inadmissible when they are admitted only to show membership in a gang, because “the possibility that a jury will attach a propensity for committing crimes to defendants who are affiliated with gangs or that a jury’s negative feelings toward gangs will influence its verdict.” *United States v. Irvin*, 87 F.3d 860, 865 (7th Cir. 1996). However, the court of appeals has found such tattoos admissible to establish a disputed fact in the case, such as the defendant’s membership in a conspiracy composed of gang members. See *Lewis*, 910 F.2d 1367. Here, Defendants are seeking to admit Malkin’s testimony about the meaning of Plaintiffs’ tattoos to demonstrate motive for Plaintiffs’ behavior,

not merely to show gang membership. The Court does not believe that the probative value of Malkin's opinion regarding Plaintiffs' gang membership is substantially outweighed by the danger of unfair prejudice. Therefore, Plaintiffs' motion to strike Defendants' gang expert is denied.

III. Motion to Exclude Testimony of Proposed Toxicology Expert

A. Dr. Brown's Opinion

Dr. Brown, Defendants' proposed toxicology expert, offers opinions regarding Plaintiff Rodriguez's blood alcohol level and blood concentration of morphine at the time of the May 2005 altercation.² In particular, Dr. Brown opines, *inter alia*, that: (1) "more likely than not," Rodriguez was "under the influence of morphine" at the time of the May 17, 2005 incident; (2) Rodriguez's blood alcohol concentration at the time of the incident was approximately 0.083, which would have significantly impaired his muscular and mental activities, including his judgment with respect to risk assessment; and (3) Rodriguez's impairment was exacerbated by the presence of morphine.

Plaintiffs' motion concerns Dr. Brown's opinions as they relate to the presence of morphine in Rodriguez's system, and its possible effect on him.³ For those opinions, Dr. Brown relies on the toxicology lab analysis of the blood sample provided by Rodriguez approximately four hours after the traffic stop, which showed that Rodriguez's blood contained a morphine

² The body metabolizes heroin to morphine.

³ Defendants list the opinions that they seek to elicit from Dr. Brown's expert report [see 121, at 5-6]. Most of those opinions pertain solely to Rodriguez's blood alcohol level and the extent to which alcohol may have impaired Rodriguez's faculties at the time of the incident. Plaintiffs' motion is styled as a motion to bar Defendants' toxicology expert from providing any testimony, but, as Plaintiffs acknowledge in their reply brief, they do not challenge Dr. Brown's opinions regarding the presence of alcohol in Rodriguez's system. See [130, at 2]. Accordingly, the Court addresses only the opinions that relate to the presence of morphine in Rodriguez's blood and its alleged effects on him at the time of the incident – opinions that are listed as (a) and (e) in Defendants' response brief [see 121, at 5-6].

concentration of less than 2.5 micrograms per liter. Dr. Brown also relies on studies showing that the body metabolizes heroin to morphine at a very rapid rate, as well as published pharmacokinetic data indicating that morphine has a serum half-life of between one and seven hours. The serum half-life is the time required to rid the blood of one-half of its concentration. Dr. Brown also states in his report that “impairment of cognition and motor control is demonstrable in healthy volunteers at plasma morphine concentrations equal to or greater than 40 micrograms per liter.”

Plaintiffs seek to exclude the portion of Dr. Brown’s testimony that relates to Plaintiff Rodriguez’s drug use, and, in particular, his opinion that Rodriguez was under the influence of morphine at the time of the May 17, 2005 incident. According to Plaintiffs, this testimony is inadmissible because: (1) Dr. Brown’s opinion is not sufficiently reliable under Rule 702; (2) any probative value of Dr. Brown’s testimony regarding Rodriguez’s alleged drug use would be substantially outweighed by the danger of unfair prejudice; and (3) evidence related to Rodriguez’s alleged drug use constitutes improper character evidence under Rule 404.

B. Rule 702

As discussed above, in order to be admissible under Rule 702, expert testimony must (1) be offered by a witness that is qualified as an expert by knowledge, skill, experience, training, or education; (2) be based on scientifically reliable reasoning or methodology; and (3) assist the trier of fact to understand the evidence or to determine a fact in issue. With respect to Dr. Brown’s testimony, Plaintiffs dispute only whether Dr. Brown’s morphine-related opinion is sufficiently reliable.⁴ Specifically, Plaintiffs contend that Dr. Brown’s expert report does not

⁴ Plaintiffs state, in conclusory fashion, that Dr. Brown’s opinion that Rodriguez was under the influence of morphine is “irrelevant” (*i.e.*, will not assist the trier of fact to understand the evidence or to determine a fact in issue). Inexplicably, however, Plaintiffs do not object to the admission of Dr. Brown’s opinion that Rodriguez was impaired by alcohol at the time of the incident. Each of the opinions regarding

explain the methodology that he used to reach his conclusion that, more likely than not, Rodriguez was under the influence of morphine at the time of the traffic stop. Plaintiffs also maintain that the data on which Dr. Brown relies does not support that conclusion.

In determining the evidentiary relevance and reliability of proposed expert testimony, this Court's "focus, of course, must be solely on principles and methodology, not on the conclusions that they generate." *Daubert*, 509 U.S. at 595. However, as the Supreme Court has recognized, "conclusions and methodology are not entirely distinct from one another," and while "[t]rained experts commonly extrapolate from existing data[,] * * * nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert." *General Elec.*, 522 U.S. at 146. In other words, "[a]n expert who supplies nothing but a bottom line supplies nothing of value to the judicial process." *Wendler & Ezra, P.C. v. American Intern. Group, Inc.*, 521 F.3d 790, 791-92 (7th Cir. 2008) (quoting *Mid-State Fertilizer Co. v. Exchange National Bank*, 877 F.2d 1333, 1339 (7th Cir. 1989)). Rather, "[i]t is critical under Rule 702 that there be a link between the facts or data the expert has worked with and the conclusion the expert's testimony is intended to support." *U.S. v. Mamah*, 332 F.3d 475, 478 (7th Cir. 2003). Where that link is missing, "[a] court may conclude that there is simply too great an analytical gap between the data and the opinion proffered." *General Elec.*, 522 U.S. at 146. Plaintiffs' reliability argument boils down to the contention that Dr. Brown fails to link his data to the conclusion that Rodriguez "more likely than not" was under the influence of morphine.

As an initial matter, the Court notes that the meaning of the phrase "under the influence of morphine," as it is used in the expert report, is not clear. The phrase "under the influence of

Rodriguez's impairment is relevant for the same reason – to support Defendants' theory that Rodriguez initiated an unprovoked attack on two police officers.

morphine” reasonably could be interpreted to mean “impaired by morphine” or “having morphine in one’s system.” Here, Plaintiffs equate “under the influence of morphine” with “impaired by morphine,” and Defendants do not refute this interpretation.⁵ Therefore, the Court will begin by considering whether an empirical link exists between the data on which Dr. Brown relied and the opinion that Rodriguez was *impaired by* morphine at the time of the incident.

Here, Dr. Brown relied on the following facts and data for his conclusions regarding the effect of morphine on Rodriguez: (1) Rodriguez’s blood contained a morphine concentration of less than 2.5 micrograms per liter four hours after the incident; (2) the body metabolizes heroin to morphine at a very rapid rate; (3) the half-life of morphine ranges from one to seven hours; and (4) “[i]mpairment of cognition and motor control is demonstrable in healthy volunteers at concentrations equal to or greater than 40 [micrograms per liter].” Assuming that Rodriguez metabolizes morphine very quickly, such that it has a half-life of only one hour in his system, then his blood concentration of morphine would have been just under 40 micrograms per liter at the time of the incident.⁶ Thus, based on the figures in the report, the highest concentration of morphine that could have been in Rodriguez’s system at the time of the traffic stop is just below the threshold for impairment identified by Dr. Brown.

The foregoing analysis demonstrates that Dr. Brown’s data does not support the conclusion that Rodriguez *likely* was impaired by morphine alone at the time of the incident. At best, it shows that there is a chance that Rodriguez fell just below the threshold level of

⁵ Indeed, as noted below, Defendants argue that Dr. Brown’s report supports the conclusion that Rodriguez was impaired by morphine. See [121, at 7-8, 10].

⁶ Assuming a half-life of one hour, the amount of morphine in Rodriguez’s blood stream at the time that his blood was drawn – four hours after the incident – should be doubled four times to determine the amount of morphine in his system at the time of the altercation. That calculation leads to a figure of less than 40 micrograms per liter in this instance.

impairment if he is assumed to metabolize morphine at the fastest recognized rate. Consequently, to the extent that “under the influence” means “impaired by,” the link between the facts and Dr. Brown’s opinion that Rodriguez likely was under the influence of morphine is inadequate, and that opinion must be barred under Rule 702. See *Mamah*, 332 F.3d at 478; *Mintel Int’l Group v. Neergheen*, 636 F. Supp. 2d 677, 685 (N.D. Ill. 2009) (“to the extent that [the expert] opines that it is ‘more likely than not’ * * * he must be able to explain why he reached that conclusion”).

Alternatively, again focusing on the ambiguity inherent in the phrase “under the influence,” Defendants appear to argue in their response brief that Dr. Brown should be allowed to offer an opinion that Rodriguez was *impaired* by morphine at the time of the incident, even if he was not *under the influence* or “*visibly* impaired.” In support of that argument, Defendants contend that 40 micrograms per liter is not a threshold for impairment, and that Dr. Brown’s report states that there would still be impairment at lower concentrations. However, the report provides no support for those contentions. The report states only that “impairment of cognition and motor control is demonstrable in healthy volunteers at plasma morphine concentrations equal to or greater than 40 micrograms per liter.” While the report does not explicitly state that there will be no impairment below 40 micrograms per liter, that omission does not lead to the conclusion that there is impairment at lower levels. The Court declines Defendants’ invitation to assume that impairment exists at lower concentrations as well where Defendants’ expert report offers no such opinion.

In any event, even if the report provided some basis for inferring impairment at lower concentrations, other (perhaps unavoidable) shortcomings in Dr. Brown’s analysis concerning the morphine in Rodriguez’s blood render any opinions on the potential effects of the morphine

on Rodriguez's behavior inadmissible in this case. The blood sample taken from Rodriguez detected a concentration of morphine of less than 2.5 micrograms per liter. From that measurement, Dr. Brown can provide only a rough estimate of the concentration that was present at the time of the incident involving the Defendant officers. On the basis of published studies, Dr. Brown notes that the time required to eliminate from the blood stream one-half of the concentration of morphine ranges between one and seven hours, depending on the individual. Applying that formula, Defendants observe that if Rodriguez were on the slowest end of the range, he would have had approximately 4 micrograms per liter in his blood at the time of the incident. As noted above, if he metabolized morphine more quickly, he may have had a higher concentration at that time – perhaps as high as 39 micrograms per liter.

As Defendants' acknowledge, Dr. Brown cannot say exactly where within the range Rodriguez would fall, because Dr. Brown had no evidence of Rodriguez's history of drug use or tolerance levels. Defendants assert that this hole in Dr. Brown's data (and thus his analysis) goes to the weight of his testimony, not its admissibility. The problem for Defendants is the combination of (i) the absence of any basis for extrapolating with any degree of precision the amount of morphine in Rodriguez's blood at the time of the incident and (ii) the absence of any expert opinion on the degree of impairment, if any, at levels below 40 micrograms per liter. The best that Defendants can do empirically is to estimate that the concentration of morphine in Rodriguez's system at the relevant time was somewhere between 4 micrograms per liter (if he was a slow metabolizer) and less than 40 micrograms per liter (if he was a very fast metabolizer). To the extent that Rodriguez was a slow, or even an average metabolizer, the concentration of morphine in his blood at the time of the incident with the Defendant officers may have been a

small fraction (perhaps one-tenth or one-eighth) of the concentration that Dr. Brown opines is necessary for demonstrable impairment.

The upshot is that, in contrast to Dr. Brown's opinions on the possible effects of alcohol on Rodriguez's behavior, Dr. Brown's opinions on the possible effects of morphine in Rodriguez's blood lack a sufficient basis in either the data or the literature cited to be considered reliable within the meaning of Rule 702, *Daubert*, and its progeny. In view of the wide range in the serum half-life of morphine in the human body and the absence of data allowing Dr. Brown to pinpoint Rodriguez within that range, the potential rate of error in regard to any testimony that Dr. Brown might offer on the amount of morphine that he believes may have been in Rodriguez's blood at the time of the incident is high. See *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 145 (1999) (noting that, under *Daubert*, one of the "reliability-related factors" that courts should consider in determining the admissibility of expert testimony is the "known or potential rate of error"); *Dhillon v. Crown Controls Corp.*, 269 F.3d 865, 869 (7th Cir. 2001) ("*Daubert* offers a non-exclusive list of factors to aid judges in determining whether [a] particular expert opinion is grounded in reliable scientific methodology," including "whether the theory has been evaluated in light of potential rates of error"). Correspondingly, any conclusions about Rodriguez's behavior that Dr. Brown may draw necessarily would be infused with a high degree of speculation. See *Lewis v. CITGO Petroleum Corp.*, 561 F.3d 698, 705 (7th Cir. 2009) ("to be admissible, a medical expert's ultimate opinion must be grounded in the scientific process and may not be merely a subjective belief or unsupported conjecture"); *Rosen v. Ciba-Geigy Corp.*, 78 F.3d 316, 318 (7th Cir. 1996) ("a district judge asked to admit scientific evidence must determine whether the evidence is genuinely scientific, as distinct from being unscientific speculation offered by a genuine scientist").

Finally, even if it were possible to extrapolate with some degree of precision the amount of morphine in Rodriguez's blood at the time of the incident, there is nothing in Dr. Brown's report offering an opinion on the degree of impairment suffered by individuals at concentrations below 40 micrograms per liter. The trier of fact therefore would be left to speculate as to the extent of impairment, if any, from the morphine. For all of these reasons, the Court concludes that any opinion testimony concerning the possible effects of the morphine detected in Rodriguez's blood during or after the incident lacks sufficient reliability to be helpful to the trier of fact and thus admissible under Rule 702. See *Goodwin v. MTD Products, Inc.*, 232 F.3d 600, 608 n.4 (7th Cir. 2000) (under *Daubert*, one factor court should consider in determining the reliability of expert testimony is whether the opinion "is scientific knowledge that will assist the trier of fact").⁷

IV. Conclusion

For the foregoing reasons, the Court denies Plaintiffs' motion to strike Defendants' gang expert [115] and grants Plaintiffs' motion to bar Defendants' toxicology expert [119], as to Dr. Brown's opinions that Rodriguez "more likely than not" was under the influence of morphine at the time of the traffic stop and that Rodriguez's alcohol-induced impairment was exacerbated by the presence of morphine.



Dated: October 23, 2009

Robert M. Dow, Jr.
United States District Judge

⁷ In view of the disposition of the motion to bar Dr. Brown's testimony on Rule 702 grounds, the Court need not address Plaintiffs' alternative arguments under Rule 403.