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IN THE COUNTY COURT OF THE 17TH
JUDICIAL CIRCUIT, IN AND FOR
BROWARD COUNTY, FLORIDA

CASE NO. 07-XXXXXXXX10A

STATE OF FLORIDA,

Plaintiff,

VS.

KK,

Defendant.

Fort Lauderdale, Florida

August 7, 2008

DEPOSITION OF DR. QIYUAN PENG

Taken on behalf of the Defendant, before HECTOR PIEDRA,
a Notary Public within and for the County of Broward,
State of Florida, pursuant to Subpoena re Deposition.

1 APPEARANCES:

2 ON BEHALF OF THE DEFENDANT
3 BY: DANIEL ROSENBERG, ESQUIRE

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2 THEREUPON:

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QIYUAN PENG

4

A witness of lawful age, being first duly sworn in accordance
5 with law, was examined and testified as follows:

6

DIRECT EXAMINATION

7

BY MR. ROSENBERG:

8

Q Doctor can you state your name and spell your last
9 name for the record please?

10

A Sure my name is Qiyuan Peng. My last name is P, as
11 in Paul, E-N-G.

12

Q Doctor Peng what is your profession?

13

A I'm a forensic toxicologist.

14

Q How long have you been a forensic toxicologist?

15

A About 10 years.

16

Q Any other prior experience in the medical field?

17

A You mean prior to here?

18

Q Yes.

19

A Yes, I worked here for about six years then I worked
20 for more than two years as an assistant director for the
21 Department of Toxicology in the state of Indiana. Then I spent
22 about two years in urine drug testing lab in a hospital in
23 Indiana.

24

Q Okay and you conducted a test on a urine sample from
25 a defendant known as KK?

1 A Actually I did not do any testing in this particular
2 case. I was the one who reviewed the toxicology results and
3 issued a toxicology report.

4 Q The results are based on a GCMS test?

5 A Results, the report is based on results from GCMS
6 and a screening test.

7 Q Okay. Are you aware of any tests that were performed
8 before the GCMS to identify potential substances in the urine?

9 A Yes. We actually used two techniques in this case.
10 One is a urine drug-screening test. The other one is GCMS
11 conformation test.

12 Q Do you use any of the amino assay tests?

13 A That's the, yes --

14 Q Which one is that one?

15 A That's the report; it's I-A, amino assay.

16 Q Okay. So that was done as well?

17 A Right.

18 Q Okay. Can you describe that test?

19 A The test is a screening test used amino assay, it's
20 the technique. Basically what the test does is tell you a
21 class of drugs. It doesn't tell you how much is there or what
22 kind of drug is there. For example, in this case we tested
23 cocaine/metabolite positive.

24 Q For --

25 A For cocaine. So it doesn't tell you if this result

1 is from cocaine itself or it's from the metabolite of cocaine.

2 Q And can you describe what metabolite is for me?

3 A The metabolite?

4 Q Yes.

5 A The definition you mean?

6 Q Yes. The difference between cocaine or cocaine from
7 metabolite I guess is what I'm asking.

8 A Well once you take a drug your body wants to get rid
9 of it because it's a foreign substance.

10 Q Okay.

11 A So one way to get rid of the drug is for your body
12 to break the drug down for something that is more water-
13 soluble.

14 Q Okay.

15 A So by doing so your body is easier to get rid of
16 drugs and the difference between the parent which is the
17 cocaine and the metabolite which are the ones which is
18 breakdown by --

19 Q It's the breakdown of the cocaine?

20 A The cocaine. That's the definition I'm sorry for --

21 Q It's no problem, however you can explain it to me is
22 fine.

23 A Yes that's basically what it is. The breakdown of
24 the parent.

25 Q Okay. And can you tell me what the metabolites of

1 the cocaine are?

2 A There are two of the metabolites of cocaine.

3 Q Okay. And you said you conducted a GCMS test as well
4 correct?

5 A Correct.

6 Q Can you tell me what a GCMS test is and just
7 describe how that works? I know it's complicated.

8 A I-A is a screening.

9 Q Okay.

10 A And a GCMS standing for gas chromatography-mass
11 spectrometry. It's basically a technique that can tell you
12 what is there and how much is there.

13 Q Okay.

14 A But in this case because it's a urine we did not
15 quantitate meaning we did not find out how much is there.

16 Q Okay.

17 A But we did find out what is there.

18 Q Okay.

19 A Which are the two metabolites of cocaine.

20 Q Okay, but cocaine itself wasn't found in there?

21 A Correct.

22 Q No cocaine just the metabolites?

23 A Correct.

24 Q Okay and the metabolites that we talked about just
25 now?

1 A Right.

2 Q Okay. So essentially the only thing that was found
3 in the urine were markers for cocaine again and I know I'm -

4 A The metabolites.

5 Q Yes.

6 A The metabolites.

7 Q The breakdown markers. It's breaking cocaine out of
8 the system down.

9 A It's something which are from cocaine.

10 Q Okay. But no cocaine itself?

11 A Correct.

12 Q Okay. This can be detected in the urine for
13 approximately four hours, is that right?

14 A No actually it's longer than that. It's probably two
15 to three days for the metabolites.

16 Q And higher dosages greater than 150ml., how long can
17 you detect it?

18 A For?

19 Q Of the same.

20 A For the metabolites?

21 Q Yes. Higher doses, the question is can higher doses
22 be detected days after?

23 A I don't understand what you mean by higher dosage
24 because you don't take it as something, if your dosage means
25 somebody takes something with known quantity. So if you say --

1 Q I guess higher concentration, is that what your
2 saying?

3 A Right because I don't how to answer the question
4 again because again it is the metabolite. Nobody takes the
5 metabolite for cocaine. Metabolite is inactive so you have no
6 effect in your body. People usually take something which makes
7 them feel high or something, but it would not have that
8 effect.

9 Q All right, let me try to ask a question that makes
10 more sense. Say a higher quantity of cocaine was taken days
11 earlier causing there to be a massive amount of metabolites.
12 Would that be able to stay in the system for longer than four
13 hours?

14 A Well again for urine I'm afraid you are referring to
15 something in blood for a few hours, but we're talking about
16 urine here.

17 Q Okay.

18 A Urine usually have a longer detect time. So as I
19 said my thing is that it's probably going to stay two to three
20 days in general.

21 Q Okay. So your saying in blood samples you were
22 talking about usually four hours, but when your dealing with
23 urine you have a longer expand of detection so usually an
24 average would be two to three days?

25 A Right, in general two to three days, but for blood

1 again if you talk about cocaine itself probably like two to
2 three hours, three to four hours. I mean cocaine is not the
3 metabolite; metabolites probably longer than two to three,
4 well let me think. Yes, I would say two to four hours for
5 cocaine. Metabolites are probably longer than that.

6 Q And that's in the blood, in the urine --

7 A That's in the blood. Right

8 Q You're saying there could be days, two to three
9 days?

10 A Right. No we are talking about blood. We're talking
11 about urine apart.

12 Q Yes. Okay.

13 A Yes, they're totally different.

14 Q Okay. Now are there any deficiencies in your health
15 that could cause the time frame to increase, say poor liver,
16 kidney function or anything like that.

17 A Of course.

18 Q It could. By approximately how much do you know?

19 A I could not give you a time frame.

20 Q Of course because I'm giving you a very general
21 problem.

22 A Right.

23 Q But a deficiency in some kind of --

24 A Medical conditions could prolong the effects in the
25 urine.

1 Q Okay. All right and the metabolite we are speaking
2 about, I don't want to attempt to say the name again. That was
3 not part of the defendants urine, is that right?

4 A It is actually there. If you look at the report it
5 is the first line and second line

6 Q And the other is that the same thing?

7 A We could not find the other in the urine.

8 Q Okay so that one was not present in the metabolite?

9 A Right.

10 Q Okay why wasn't that present, do you know?

11 A Well for our G-C we actually could not see it if
12 it's not very high. Only a high concentration will be able to
13 see it, but if it's not very high then we won't see it.

14 Q Okay. All right and in addition to the metabolites
15 approximately what percent of cocaine is actually excreted
16 unchanged in the urine? D you know percentages?

17 A The percentage?

18 Q Yes.

19 A That's a good question I don't know. I cannot
20 remember.

21 Q Five, two percent?

22 A Maybe, it's real low, but I will not give out a
23 number because I really do not memorize the number.

24 Q Okay. I mean of course. But it's lower than 25
25 percent, but there is some chance that some of it comes out of

1 the urine?

2 A Well we have seen cases in which cocaine in the
3 urine. Yes.

4 Q Okay. All right. Is it safe to say doctor that the
5 closest a specimen is taken right up to the time of injection,
6 the more likely you would actually find cocaine as opposed to
7 the metabolites?

8 A The closer you get the specimen after the subject
9 injects cocaine the more likely your going to see both the
10 parent, which is cocaine, and the metabolites.

11 Q The breakdown?

12 A Right.

13 Q Okay. And again there was no cocaine just
14 metabolites right?

15 A Right.

16 Q Okay. Now is it possible to ever have a false
17 positive test for cocaine?

18 A I'm not sure what you mean by false positive.

19 Q Are there things that can cause, other drugs that
20 can cause a positive for cocaine in the urine test?

21 A No.

22 Q None?

23 A No.

24 Q Okay.

25 A Especially --

1 Q Amoxicillin for example, could that ever come up
2 positive for cocaine?

3 A No. As I was going to say that especially in this
4 case we have used two separate techniques to do the tests and
5 the results are consistent.

6 Q Okay. How about possibly drugs that are derived from
7 cocaine? Litocaine, Novocain, anything like that?

8 A I don't think so.

9 Q No? Okay. Liver disease, kidney disease, diabetes
10 nothing like that?

11 A No.

12 Q Okay. Can you explain, and I think you did a little
13 bit before, but explain this for the record the difference
14 between the renal system and the circulatory system? Kind of
15 brief I'm not --

16 A Well renal system is the system you get real waste.

17 Q Okay.

18 A And the circular system is the -- through your
19 system whether you have in your blood is distributed to
20 different organs and different parts of your body.

21 Q Okay. So in saying that we found cocaine metabolite
22 sin the urine system, which is the body's waste system --

23 A Right.

24 Q It's safe to say that just because you found
25 metabolites in the defendant's urine that he might not be

1 under the influence of cocaine at the time?

2 A Well to answer the question directly, yes. The
3 reason is that there is no correlation between the impairment
4 and the urine results. Urine tells you history of somebody who
5 used something; in this case it tells me that this individual
6 may have used cocaine a couple days ago.

7 Q Okay.

8 A That's all it can tell you, there's no correlation
9 and I cannot make any conclusions saying that because what I
10 saw here the person must be under the influence of anything.
11 There's no correlation period.

12 Q Okay. Great. I think you answered my next question.
13 And as far as how long a drug remains in the circulatory
14 system you'd have to know the time of injection in order to
15 give me an estimate of how much of a drug remained In the
16 circulatory system if any, is that right?

17 A Right. Again it does not apply here because we don't
18 have any blood results we just have the urine.

19 Q We just have the urine?

20 A Right.

21 Q And just to clear for the record all the drug, we
22 have been going back and forth, there is no way to accurately
23 determine what's in a persons system at that present time
24 without a blood test.

25 A Right we don't have any blood result to back up any

1 conclusion or anything. Everything in urine we have.

2 Q Okay. And regarding cocaine, say even a blood test,
3 given a specific level present in the circulatory system
4 cannot be associated with any degree of impairment without
5 knowing certain other information as well, would that be an
6 accurate statement?

7 A Well if you do have a blood result, if you do have
8 say cocaine present, it could make certain statements
9 regarding the result. It's just I cannot tell you how because
10 I have to see the results first, but it could. You could make
11 a correlation between impairment and the result.

12 Q But you need other outside information when your
13 looking at the blood or you could just look at the blood and
14 say this person is impaired at this time?

15 A It depends. Cocaine is --

16 Q It's arbitrary meaning depending on the people. How
17 long they have used it or if that have never used it before?

18 A Right, the history. The concentration is --

19 Q Tolerance of an individual?

20 A Tolerance is important and a lot of factors.

21 Q Okay. Is it possible that small doses of cocaine
22 would not have an impairing effect? Sometimes had been found
23 to improve attention abilities or anything like that? I'm not
24 saying it's going to be legalized anytime soon, but?

25 A Right. If you read the literature there are

1 discussions about cocaine can improve certain tasks; however,
2 most of the literature are dealing with single test
3 performance, but if you get involved into something more
4 complicated like something like driving, which is a much more
5 complicated task than I don't know that conclusion hold.
6 Meaning it can improve somebody's ability of driving because
7 driving is a multiple task.

8 Q Of course.

9 A There are a lot of things involved. So again there
10 are discussion about small dosage may make somebody more alert
11 for his or her surroundings, do some single tasks better than
12 somebody who is not doing cocaine, but those are simple single
13 tasks.

14 Q Okay. All right. I'm going to just ask you straight
15 forward questions to try to summarize everything that we have
16 talked about up. Based on what you're looking at --

17 A Right.

18 Q You have no idea how much cocaine is in the
19 defendants circulatory system?

20 A No.

21 Q Is that safe to say? Okay. And you don't know if any
22 cocaine was present actually, the parent drug, cocaine is
23 actually present in the circulatory system of the defendant,
24 is that right?

25 A Correct.

1 Q Okay. And based on what we just talked about, even
2 if there was some cocaine in the circulatory system, you
3 couldn't tell by just looking at that if that individual is
4 actually impaired? Is that a safe statement to say? Based on
5 the conversation we talked about an individual's tolerance, an
6 individual has higher tolerance if there's smaller cocaine, we
7 don't how impaired he would be based on that?

8 A I would say that if you have a blood result you just
9 have to look at the blood result and then if the other
10 information is available then you use the information and you
11 can do some discussion. Without those --

12 Q Without the outside information?

13 A Well we don't know if the information, again you
14 have to really look at the results. Sometimes you know low
15 concentration of cocaine could have some impact with
16 somebody's ability of driving.

17 Q Right.

18 A You have to look at different things for
19 individuals.

20 Q Of course. But if you were stuck with the four
21 corners of your result without any outside information on the
22 person's height, history, anything like that, you couldn't
23 give a definitive opinion as to whether that person was
24 impaired?

25 A I don't think you can give a definitive conclusion

1 just by looking at a result. There are general terms if
2 somebody has certain levels of cocaine. We'd say well this
3 person; I would say this person is most likely, I would not
4 say he is because I'm not there.

5 Q Okay.

6 A So to have other factors or witnesses or whatever to
7 back up you know, to correlate what I say.

8 Q And again in this case we don't even have the four
9 corners and a blood result we just have the urine sample --

10 A Correct

11 Q That simply tells the history of a person.

12 A Correct.

13 Q Last question regarding the roadside sobriety
14 exercises, cocaine is a CNS? Is that correct?

15 A It's a CNS stimulant.

16 Q Okay. And cocaine injection that doesn't produce a
17 horizontal gaze nystagmus? Does it?

18 A That I don't remember. I don't remember I don't
19 know. I'm not really trained on the side road test.

20 Q So most officers aren't either. Okay. Do you
21 understand everything I've asked you doctor?

22 A I do.

23 Q Would you like to read or waive? Do you understand
24 what reading or waive is?

25 A Read. 954-327-6523.

1 Q Okay and this concludes our deposition, you have
2 anything you want to add on before we conclude it?

3 A No.

4 Q Thank you very much.

5 (Thereupon, the deposition was concluded.)

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1 STATE OF FLORIDA

2 COUNTY OF BROWARD

3 I, HECTOR PIEDRA, certify that I was authorized to and
4 did report the foregoing proceedings and that the transcript
5 is a true record.

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Dated this 27th day of August, 2008.

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HECTOR PIEDRA

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