

20 July 2023

Marlia Saunders Partner Thomson Geer Lawyers Level 14, 60 Martin Place Sydney NSW 2000 Australia

Re:	Bruce Lehrmann v Network Ten Pty Ltd & Anor Federal Court of Australia – NSD 103 of 2023
IFC Expert Case:	23-0242
Your Ref:	Not Provided

#### EXPERT STATEMENT

I, Michael Robertson from Independent Forensic Consulting at 48 Blackwood Road, Manly West in Queensland hereby certify as follows:-

I am a pharmacologist and forensic toxicologist. After completing my undergraduate degree majoring in pharmacology and toxicology, I earned my Ph.D. in medicine studying at the Victorian Institute of Forensic Medicine (Monash University), specialising in forensic toxicology. I subsequently completed my post-doctoral fellowship in forensic toxicology at National Medical Services (NMS) in Pennsylvania (USA).

As a pharmacologist and forensic toxicologist with more than 30 years professional experience, I have studied the affects and effects of drugs and poisons on humans including mechanism of action; desirable effects and non-desirable, adverse effects. I have performed research in the field of pharmacology and toxicology including methods of drug analysis; affects of drugs on humans; evaluation of the safety and efficacy of drugs on humans. I have assigned, supervised, performed, certified and interpreted hundreds of toxicological analyses for a range of clients including pathology and forensic laboratories, pharmaceutical companies, regulatory agencies and legal professionals.

Expert Case 23-0242 Page 1 of 11 I have prepared expert reports and testified throughout Australia and overseas in local, state, and federal courts and military courts for prosecution, defence and plaintiff lawyers relating to forensic toxicology including matters involving:

- Criminal Law (including drug facilitated sexual assault; DUI and DUID; cause or contribution to death; human performance and behaviour; poisonings; drug possession and matters of legal status of drugs including the evaluation of Synthetic Cannabis and Synthetic Stimulants e.g. 'Bath Salts' and issues associated with analogue provisions);
- Family Law (including the interpretation of urine, drug and hair follicle testing; Liver Function Tests (LFT), Carbohydrate Deficient Transferrin (CDT) and Ethyl Glucuronide (EtG) testing and result interpretation);
- Personal Injury, Medical Negligence, CTP, Insurance claims;
- Workplace Disputes (including the interpretation of urine, oral fluid and/or hair test results and compliance with acceptable drug testing procedures);
- Workplace Accidents (involving the cause and contribution of drugs and alcohol to an incident); together with matters including exposure to chemicals and other poisons;
- Doping disputes and investigations including professional athletes (ASADA; WADA) and Steward enquiries involving the racing industry (jockeys, riders, racehorses, harness racing, greyhounds etc.);
- Miscellaneous civil matters and disputes involving drugs and chemicals.

I have also lectured at numerous Universities on topics such as pharmacology and forensic toxicology. I have authored a number of peer-review papers and routinely attend national and international scientific conferences. I currently hold membership of The International Association of Forensic Toxicologists (TIAFT), the Society of Forensic Toxicologists (SOFT), The Society of Hair Testing (SoHT), The Australian and New Zealand Forensic Science Society (ANZFSS) and the Forensic and Clinical Toxicology Association (FACTA). I have been a member of the SOFT Drugs and Driving Committee and SOFT Drug Facilitated Sexual Assault Committee and served as an invited reviewer on the SOFT Scientific Advisory panel. I currently serve as an invited reviewer for a number of international journals and I am the immediate past Chair of the Standards Australia oral fluid committee reviewing and updating AS/NZS 4760 – Procedure for specimen collection and the detection and quantitation of drugs in oral fluid. I am the current Chair of the Standards Australia urine committee reviewing and updating AS/NZS 4308 – Procedure for specimen collection and the detection and quantitation of drugs in urine.

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#### **CODE OF CONDUCT**

I have the Practice Note, including the Harmonised Expert Witness Code of Conduct and agree to be bound by it.

I acknowledge that I have read and complied with the practice note and agree to be bound by it; and that my opinions are based wholly on specialised knowledge arising from the expert's training, study or experience.

I declare that I have made all the inquiries which I believe are desirable and appropriate (save for any other matters identified explicitly in the report), and no matters of significance which I regard as relevant have, to my knowledge, been withheld from the court.

#### **REPORT**

Dear Ms Saunders,

You have retained Independent Forensic Consulting represented by myself, Dr Michael Robertson, as consultants in pharmacology and toxicology in the above captioned matter.

I understand that you act for the First Respondent, Network Ten Pty Ltd, in the above defamation proceeding brought by Bruce Lehrmann (Lehrmann).

You have requested the I review the provided information and respond to the questions outlined in the body of this report.

In order to comply with that request, you have supplied me with the following:

- 1) Letter of Instruction from yourself outlining the pertinent issues and assumptions, dated 6 July 2023;
- 2) Compilation of CCTV Footage of Ms Higgins at The Dock and Parliament House;
- 3) Expert Evidence Practice Note (GPN-EXPT) and Annexure A Harmonised Expert Witness Code of Conduct.

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#### BACKGROUND<sup>1</sup>

The following are the circumstances you have asked me to assume and upon which I base my comments:

- 1. As at 22 March 2019, Ms Higgins was 24 years of age.
- 2. As at 22 March 2019, Ms Higgins was 170cm tall and weighed approximately 60kg.

Assumptions in relation to The Dock

- 3. Between approximately 7:24pm and 11:50pm on 22 March 2019, Ms Higgins consumed 10 vodka, lime and soda drinks in a short glass.
- 4. The drinks were purchased by or handed to Ms Higgins at the following times, and each drink was finished by her:

a. 7:25pm;
b. 7:50pm;
c. 8:04pm;
d. 8:34pm;
e. 8:51pm;
f. 9:34pm;
g. 10:09pm;
h. 10:42pm;
i. 11:10pm;
j. 11:50pm.

- 5. The final drink handed to Ms Higgins at 11:50pm was skolled by her.
- 6. During the period referred to paragraph 3, Ms Higgins:
  - a. consumed one piece of pizza and a few hot chips; and
  - b. did not consume any non-alcoholic drinks.
- 7. Between approximately 12:00am and 1:30am on 23 March 2019, Ms Higgins consumed 3 drinks, being:
  - a. one vodka and diet coke;
  - b. one vodka, lime and soda; and
  - c. one shot of an unknown alcoholic spirit.

<sup>&</sup>lt;sup>1</sup> The comments and opinions outlined in this report are based upon the circumstances I have assumed from the supplied documents and outlined in the Background. Should these circumstances or assumptions change, so too may the comments and opinions.

8. During the period referred to paragraph 7, Ms Higgins:

a. did not consume any food; andb. did not consume any non-alcoholic drinks.

- 9. At 1:50am on 23 March 2019, Ms Higgins went through Parliament House security.
- 10. At approximately 2:00am on 23 March 2019, Ms Higgins was sitting by herself in a dark and quiet room.

#### **QUESTIONS**

- 1. Based on the assumptions set out in Annexure B, please estimate Ms Brittany Higgins' level of intoxication, including her blood alcohol concentration (BAC), at the following times:
  - a. 9:30pm, 22 March 2019;
  - b. 10:07pm, 22 March 2019;
  - c. 11:50pm, 22 March 2019;
  - d. 1:50am, 23 March 2019; and
  - e. 2:15am, 23 March 2019.

#### Estimation of Ms Higgins BAC at the times of interest

- 1.1. The blood alcohol concentration (BAC) of Ms Higgins at 9:30pm, can be estimated by determining the amount of alcohol ingested and subtracting from that amount, the amount of alcohol metabolised between the start of drinking and the time of interest i.e. 9:30pm.
- 1.2. In a female individual approximately 170cm tall and weighing 60kgs, using long-standing, empirically supported formulas and calculations, one standard drink will raise their BAC by approximately 0.025%<sup>2</sup>,<sup>3</sup>.
- 1.3. From the assumptions above, between the time Ms Higgins started drinking at or about 7:25pm and the time of interest at 9:30pm, she ingested five (5) vodka, lime and soda drinks in a short glass.
- 1.4. When I assume each drink contained 1 shot or 30 mL of vodka, each drink would be equivalent to approximately 1 standard drink of alcohol<sup>4</sup>. Given one standard drink would

<sup>&</sup>lt;sup>2</sup> Medicolegal Aspects of Alcohol, Ed. James Garriott

<sup>&</sup>lt;sup>3</sup> Barbour AD. Simplified estimation of Widmark "r" values by the method of Forrest. *Science and Justice*.

<sup>2001;41:53-54</sup> 

<sup>&</sup>lt;sup>4</sup> One standard drinks is equivalent to 10 grams of alcohol

contribute approximately 0.025% to the blood of Ms Higgins, the ingestion of 5 standard drinks would contribute the equivalent of approximately 0.125%.

- 1.5. Following the ingestion of alcohol, alcohol must first pass to the small intestine where the majority of alcohol is absorbed. Once in the small intestine, the absorption of alcohol is rapid and usually results in an increase in the BAC during the drinking period.
- 1.6. On an empty stomach, the time peak alcohol concentration after completion of drinking generally ranges from 20 minutes to 60 minutes on an empty stomach<sup>5,6,7</sup>. Peak concentrations may be reached sooner when drinking slowly and may be delayed when consuming alcohol rapidly. In the presence of food, absorption of alcohol and therefore the peak alcohol concentration may be extended for up to two hours due to a delay in gastric emptying and subsequent absorption of alcohol.
- 1.7. After reaching a peak BAC, the BAC subsequently declines at a steady rate referred to as the metabolic rate.
- 1.8. Alcohol is metabolised at an average rate of 0.015% per hour. This rate has been found to range between 0.01% per hour in infrequent drinkers up to 0.025% in more frequent drinkers<sup>3</sup>,<sup>8</sup>. Alcoholics may have rates of metabolism exceeding this amount.
- 1.9. Therefore, in the 2 hours between the commencement of drinking at 7:25pm and the time of interest of 9:30pm, an amount of alcohol equivalent to between 0.02% (2 hours x 0.01% per hour) and 0.05% (2 hours x 0.025% per hour), with a most likely amount of approximately 0.03% (2 hours x 0.015% per hour), would have been metabolised or removed from the blood.
- 1.10. Therefore, based on the assumptions outlined above, the BAC of Ms Higgins at 9:30pm would have been between 0.075% (0.125% less 0.05%) and 0.105% (0.125% less 0.02%) and most likely closer to 0.095% (0.125% less 0.03%) when average rates of metabolism are assumed.
- 1.11. With respect to the other times of interest referred to above, the same approach can be taken.
- 1.12. The estimated BACs for each of the times of interest using the same approach as above are outlined in the table below. The table contains the estimated 'low' end of the

<sup>&</sup>lt;sup>5</sup> Medicolegal Aspects of Alcohol, Ed. James Garriott

<sup>&</sup>lt;sup>6</sup> Jones AW. Alcohol: Acute and Chronic Use and Postmortem Findings. Encyl Forens Legal Med. 2016;1:84-107

<sup>&</sup>lt;sup>7</sup> Mitchell Jr et al. Absorption and Peak Blood Alcohol Concentration After Drinking Beer, Wine, or Spirits. *Alc Clin Exp Res.* 2014;38(5):1200–04

<sup>&</sup>lt;sup>8</sup> Jones AW. Evidence-based survey of the elimination rates of ethanol from blood with applications in forensic casework. *Forens Sci Int.* 2010; 200:1-20.

Time of Interest	Low	Average	High
9:30pm	0.075%	0.095%	0.105%
10:07pm	0.08%	0.11%	0.12%
11:50pm*	0.12%	0.16%	0.19%
1:50am	0.17%	0.23%	0.27%
2:15am	0.16%	0.23%	0.26%

concentration range assuming a rapid rate of metabolism; the 'average' or most likely BAC and the 'high' concentration based on a low metabolic rate.

\* The estimated BAC at 11:50pm, does not include the drink ingested at 11:50pm.

- 1.13. Of note, the BACs estimated above may have been slightly lower for the following reasons:
  - 1.13.1. If an amount of alcohol was unabsorbed at the time of the time of interest outlined in the table above. When it is assumed that most drinks were not skolled (except the drink at 11:50pm), the BAC of Ms Higgins is likely to be close to the estimated BACs above. Further, when it assumed that drinking ceased at 1:30am, it is likely that at 1:50am and 2:15am the majority, if not all the ingested alcohol would have been absorbed.
  - 1.13.2. The ingestion of a slice of pizza and a few hot chips. The ingestion of food generally increases the time to peak BAC and reduces the peak BAC, the magnitude of which cannot be determined from the provided information alone. I note however that the single slice of pizza and a 'few hot chips' does not appear to be substantial and as such any food-related reduction in the BAC of Ms Higgins, usually associated with a substantial meal, would have been minimal.

#### Estimation of Ms Higgins' impairment at the times of interest

- 1.14. With respect to the estimations of intoxication, the estimated BAC, the drinking pattern (i.e. steady or rapid) and the level of tolerance are all considered.
- 1.15. Whilst the effect of alcohol on a specific individual varies based primarily on both the BAC and their tolerance to the effects of alcohol, in general, following the consumption of alcohol and the subsequent rise in blood alcohol concentrations, at concentrations from approximately 0.03% an individual may experience a euphoric phase with clinical signs that include mild euphoria; increased self-confidence and disinhibition.
- 1.16. Between 0.05% and 0.1%, individuals typically experience an excitement phase with signs that include: a reduction in inhibitions; increased talkativeness; increased

reaction time; disturbed sensory and motor functions. Most people appear sober, particularly if not drinking rapidly.

- 1.17. Between 0.1% and 0.15%, individuals typically experience impaired judgment; unsteady gait; impaired speech; emotional instability may occur.
- 1.18. Between 0.15% and 0.2%, nausea, vomiting and memory impairment become more likely particularly when alcohol is consumed rapidly. Obvious signs of drunkenness become more likely such as unsteady gait, impaired balance, flushed face and / or glazed eyes etc. Increase in drowsiness may occur.
- 1.19. Between 0.2% and 0.3%, obvious signs of intoxication become more apparent including muscular incoordination leading to staggering gait, slurred speech, increased pain threshold, impaired perception and judgement. Lethargy and sleepiness becomes more pronounced.
- 1.20. At concentrations above 0.3%, a confused state may predominate that is characterised by disorientation and confusion, stupor and possibly coma. As concentrations continue to rise, a loss of motor functions, decreased response to stimuli and impaired consciousness are expected. The risk of death occurs as concentrations approach or exceed  $0.4\%^{9}$ ,  $^{10}$ ,  $^{11}$ ,  $^{12}$ ,  $^{13}$ .
- 1.21. At concentrations between 0.10% and 0.15%, observable signs of intoxication become evident in the majority of regular consumers of alcohol<sup>14</sup>,<sup>15</sup>,<sup>16</sup>. Infrequent consumers of alcohol are likely to display signs of intoxication at lower concentrations relative to regular or heavy consumers of alcohol.
- 1.22. Following the completion of alcohol ingestion and the subsequent fall in BACs, the sedative effects such as fatigue and tiredness become more pronounced and an individual appears less intoxicated, relative to the same BAC when the BAC is rising<sup>6</sup>,<sup>17</sup>.
- 1.23. As stated above, when estimating an individual's level of intoxication, both the BAC and the individual's level of tolerance to alcohol should be considered when known.

<sup>&</sup>lt;sup>9</sup> Medicolegal Aspects of Alcohol, Ed. James Garriott

<sup>&</sup>lt;sup>10</sup> Perry et al. Ethanol Forensic Toxicology. J Am Acad Psychiatry Law. 2017;45:429–38

<sup>&</sup>lt;sup>11</sup> White AM. What happened? Alcohol, memory blackouts, and the brain. Alcohol Res Health. 2003:27(2):186-96

<sup>&</sup>lt;sup>12</sup> Moskowitz et al. Driver Characteristics and Impairment at Various BACs. U.S. DOT 2000

<sup>&</sup>lt;sup>13</sup> Moskowitz and Fiorentino. A Review of the Literature of Low Doses of Alcohol on Driving-Related Skills. U.S. DOT 2000

<sup>&</sup>lt;sup>14</sup> American Medical Association Council on Scientific Affairs. Alcohol and the driver. J Am Med Assoc. 1996: 265:522-527

<sup>&</sup>lt;sup>15</sup> Brick and Erickson. Intoxication Is Not Always Visible: An Unrecognized Prevention Challenge. *Alcoholism: Clin and Exper Research*. 2009:33(9);1489-507

<sup>&</sup>lt;sup>16</sup> Rubenzer S. Judging Intoxication. *Behav. Sci. Law.* 2011;29:116-37

<sup>&</sup>lt;sup>17</sup> Roehrs and Roth. Alcohol-Induced Sleepiness and Memory Function. *Alc. Health Res World.* 1995;19(2):130-35

- 1.24. When it is assumed that Ms Higgins is neither a non-drinker nor a heavy drinker of alcohol, it is reasonable to conclude that her BACs would approximate the 'average' concentrations in the table above.
- 1.25. When it is assumed that Ms Higgins is neither a non-drinker nor a heavy drinker of alcohol, it is reasonable to conclude that her level of tolerance to alcohol would be moderate however of relevance, it appears she consumed alcohol in a steady manner over an extended period of time i.e. between 7:25pm and 1:30am, and as such she is likely to have experience acute tolerance during the drinking the period. This acute tolerance would likely reduce the observable effects of alcohol, particularly following the completion of drinking as her BAC was falling<sup>6</sup>,<sup>17</sup>.
- 1.26. At a BAC of approximately 0.1%, the effects of alcohol on Ms Higgins would likely have included a combination of:
  - 1.26.1. Mild euphoria and an increase in self-confidence;
  - 1.26.2. Reduced inhibitions;
  - 1.26.3. Increased sociability and talkativeness;
  - 1.26.4. Is likely to have appeared sober.
- 1.27. As the BAC of Ms Higgins approached and exceeded 0.2%, she is likely to have experienced a combination of the above effects together with:
  - 1.27.1. Reduced coordination including fine motor skills;
  - 1.27.2. Unsteadiness;
  - 1.27.3. Possible slurred speech, facial flushing or glazed eyes;
  - 1.27.4. Drowsy and tired following the completion of drinking.
- 1.28. Upon completion of drinking at 1:30am and the subsequent decline in her BAC that is likely to have occurred shortly after the completion of drinking, Ms Higgins is likely to have begun experiencing the more sedating effects of alcohol resulting in the decline of 'positive' effects i.e. euphoria, confidence etc. and an increase in tiredness and fatigue.

# 2. Please describe the behaviours or symptoms associated with each of the levels of intoxication estimated above.

2.1. Please see the responses to question 1 above.

- **3.** Having regard to the CCTV material provided in Annexure C at each of the following times, is Ms Higgins' behaviour consistent with the level of intoxication estimated in response to question 1:
  - a. 9:30pm, 22 March 2019
  - b. 10:07pm, 22 March 2019
  - c. 11:50pm, 22 March 2019
  - d. 1:50am, 23 March 2019
  - e. 2:15am, 23 March 2019.
  - 3.1. At 9:30pm, Ms Higgins can be seen talking at the bar, during this time there are no obvious signs of intoxication including impaired gait, sway or impaired motor coordination.
  - 3.2. At 10:07pm, Ms Higgins can be seen standing at bar. Whilst there is no obvious impairment there is some minor swaying back and forth while standing and at 22:08:30, Ms Higgins appears to lose her balance and steps backwards to maintain balance.
  - 3.3. At 11:50pm, Ms Higgins can be seen leaving the bar. Ms Higgins appears to be walking unassisted and without any obvious impediment or intoxication.
  - 3.4. At 1:50am, Ms Higgins can be seen arriving at Parliament House. Ms Higgins can be seen walking up to and through security check point unassisted. Ms Higgins then turns around and walks back through security check point unassisted. On the third occasion, Ms Higgins removes her shoes. Whilst the vision of her removing shoes is somewhat obscured, there is no obvious signs of intoxication whilst removing her shoes or during the period of time at security. Ms Higgins subsequently attempts to put shoes back on but is not successful. It is not clear if this is alcohol related or not. Ms Higgins is then seen shuffling down corridor, walks to a door and stands for a period of time before entering the room. During this time there is no obvious signs of intoxication. Of relevance however it is likely she had developed an amount of acute tolerance to alcohol at this stage and as such is likely to appear less intoxicated, particularly if her BAC was falling at this time.
  - 3.5. I have not been provided any CCTV footage at 2:15am, and as such cannot comment on her appearance at this time.

# 4. Having regard to Ms Higgins' level of intoxication between 1.50am and 2:15am on 23 March 2019, please comment on the likelihood of Ms Higgins falling asleep.

3.6. After the completion of drinking at or shortly prior to 1:30am, it is likely that at 1:50am and at 2:15am her BAC would have peaked and was likely falling. With an estimated BAC of approximately 0.23% and a falling BAC, the effects of alcohol would likely include sedation and increasing tiredness.

3.7. The sedative effects of alcohol would increase the likelihood of falling asleep relative to the likelihood of falling asleep in the absence of alcohol.

Sincerely,

p.C.

Dr Michael Robertson Pharmacologist and Forensic Toxicologist

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Level 14, 60 Martin Place Sydney NSW 2000 Australia

GPO Box 3909 Sydney NSW 2001

T +61 2 8248 5800 F +61 2 8248 5899

6 July 2023

Dr Michael Robertson Independent Forensic Consulting PO Box 5762 Manly QLD 4179 **Privileged & Confidential** 

Dear Dr Robertson

#### Bruce Lehrmann v Network Ten Pty Ltd & Anor Federal Court of Australia – NSD 103 of 2023

We refer to our retainer letter sent to you on 29 June 2023.

As we have now provided your signed undertaking to the Court, this letter:

- includes our instructions to you for your expert report and the questions we would like you to address (Annexure A);
- includes a list of assumptions you should make when answering the questions asked of you (Annexure B); and
- attaches a link to relevant material (as set out in Annexure C).

As previously advised, please provide your expert report by Friday 14 July 2023.

If you have any questions, please do not hesitate to contact us.

Yours faithfully THOMSON GEER

Warna

 Marlia Saunders

 Partner

 T
 +61 2 8248 5836

 M
 +61 417 435 251

 E
 msaunders@tglaw.com.au

#### **ANNEXURE A – INSTRUCTIONS**

We have set out below our instructions for preparing your expert report:

- 1. Please confirm in your report that you have read and agree to be bound by the Practice Note, including the Harmonised Expert Witness Code of Conduct. If you are for any reason unable to agree to be bound by the Practice Note, please let us know.
- 2. Please annex a copy of our retainer letter of 29 June 2023, this letter, any other letter containing our instructions and the Practice Note to your expert report.
- 3. Please annex your curriculum vitae to your expert report.
- 4. In the introduction to your expert report, please describe your qualifications and the reasons why you are qualified to provide an expert opinion in relation to pharmacology, forensic toxicology and chemistry.
- 5. Please provide your opinion in response to the questions set out below based on your expert knowledge and experience in the field of pharmacology, forensic toxicology and chemistry.
- 6. Please provide detailed reasons for the opinions you express.
- 7. Please footnote and/or annex any publications or other resources that you rely on or refer to in preparing your expert report.

#### Questions

The questions we would like you to address in your expert report are as follows:

- 1. Based on the assumptions set out in Annexure B, please estimate Ms Brittany Higgins' level of intoxication, including her blood alcohol concentration (**BAC**), at the following times:
  - a. 9:30pm, 22 March 2019;
  - b. 10:07pm, 22 March 2019;
  - c. 11:50pm, 22 March 2019;
  - d. 1:50am, 23 March 2019; and
  - e. 2:15am, 23 March 2019.
- 2. Please describe the behaviours or symptoms associated with each of the levels of intoxication estimated above.
- 3. Having regard to the CCTV material provided in Annexure C at each of the following times, is Ms Higgins' behaviour consistent with the level of intoxication estimated in response to question 1:
  - a. 9:30pm, 22 March 2019;
  - b. 10:07pm, 22 March 2019;
  - c. 11:50pm, 22 March 2019;
  - d. 1:50am, 23 March 2019; and

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- e. 2:15am, 23 March 2019.
- 4. Having regard to Ms Higgins' level of intoxication between 1.50am and 2:15am on 23 March 2019, please comment on the likelihood of Ms Higgins falling asleep.

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#### **ANNEXURE B – ASSUMPTIONS**

When answering the questions contained in Annexure A, we ask that you assume as follows:

- 1. As at 22 March 2019, Ms Higgins was 24 years of age.
- 2. As at 22 March 2019, Ms Higgins was 170cm tall and weighed approximately 60kg.

Assumptions in relation to The Dock

- 3. Between approximately 7:24pm and 11:50pm on 22 March 2019, Ms Higgins consumed 10 vodka, lime and soda drinks in a short glass.
- 4. The drinks were purchased by or handed to Ms Higgins at the following times, and each drink was finished by her:
  - a. 7:25pm;
  - b. 7:50pm;
  - c. 8:04pm;
  - d. 8:34pm;
  - e. 8:51pm;
  - f. 9:34pm;
  - g. 10:09pm;
  - h. 10:42pm;
  - i. 11:10pm; and
  - j. 11:50pm.
- 5. The final drink handed to Ms Higgins at 11:50pm was skolled by her.
- 6. During the period referred to paragraph 3, Ms Higgins:
  - a. consumed one piece of pizza and a few hot chips; and
  - b. did not consume any non-alcoholic drinks.
- 7. Between approximately 12:00am and 1:30am on 23 March 2019, Ms Higgins consumed 3 drinks, being:
  - a. one vodka and diet coke;
  - b. one vodka, lime and soda; and

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- c. one shot of an unknown alcoholic spirit.
- 8. During the period referred to paragraph 7, Ms Higgins:
  - a. did not consume any food; and
  - b. did not consume any non-alcoholic drinks.
- 9. At 1:50am on 23 March 2019, Ms Higgins went through Parliament House security.
- 10. At approximately 2:00am on 23 March 2019, Ms Higgins was sitting by herself in a dark and quiet room.

#### ANNEXURE C – INDEX OF RELEVANT DOCUMENTS

Document No.	Description
1.	Compilation of CCTV Footage of Ms Higgins at The Dock and Parliament House



## **EXPERT EVIDENCE PRACTICE NOTE (GPN-EXPT)**

**General Practice Note** 

#### 1. INTRODUCTION

- 1.1 This practice note, including the Harmonised Expert Witness Code of Conduct ("Code") (see Annexure A) and the Concurrent Expert Evidence Guidelines ("Concurrent Evidence Guidelines") (see Annexure B), applies to any proceeding involving the use of expert evidence and must be read together with:
  - (a) the Central Practice Note (CPN-1), which sets out the fundamental principles concerning the National Court Framework ("NCF") of the Federal Court and key principles of case management procedure;
  - (b) the Federal Court of Australia Act 1976 (Cth) ("Federal Court Act");
  - (c) the Evidence Act 1995 (Cth) ("Evidence Act"), including Part 3.3 of the Evidence Act;
  - (d) Part 23 of the Federal Court Rules 2011 (Cth) ("Federal Court Rules"); and
  - (e) where applicable, the Survey Evidence Practice Note (GPN-SURV).
- 1.2 This practice note takes effect from the date it is issued and, to the extent practicable, applies to proceedings whether filed before, or after, the date of issuing.

#### 2. APPROACH TO EXPERT EVIDENCE

- 2.1 An expert witness may be retained to give opinion evidence in the proceeding, or, in certain circumstances, to express an opinion that may be relied upon in alternative dispute resolution procedures such as mediation or a conference of experts. In some circumstances an expert may be appointed as an independent adviser to the Court.
- 2.2 The purpose of the use of expert evidence in proceedings, often in relation to complex subject matter, is for the Court to receive the benefit of the objective and impartial assessment of an issue from a witness with specialised knowledge (based on training, study or experience see generally s 79 of the Evidence Act).
- 2.3 However, the use or admissibility of expert evidence remains subject to the overriding requirements that:
  - (a) to be admissible in a proceeding, any such evidence must be relevant (s 56 of the Evidence Act); and
  - (b) even if relevant, any such evidence, may be refused to be admitted by the Court if its probative value is outweighed by other considerations such as the evidence

being unfairly prejudicial, misleading or will result in an undue waste of time (s 135 of the Evidence Act).

- 2.4 An expert witness' opinion evidence may have little or no value unless the assumptions adopted by the expert (ie. the facts or grounds relied upon) and his or her reasoning are expressly stated in any written report or oral evidence given.
- 2.5 The Court will ensure that, in the interests of justice, parties are given a reasonable opportunity to adduce and test relevant expert opinion evidence. However, the Court expects parties and any legal representatives acting on their behalf, when dealing with expert witnesses and expert evidence, to at all times comply with their duties associated with the overarching purpose in the Federal Court Act (see ss 37M and 37N).

#### 3. INTERACTION WITH EXPERT WITNESSES

- 3.1 Parties and their legal representatives should never view an expert witness retained (or partly retained) by them as that party's advocate or "hired gun". Equally, they should never attempt to pressure or influence an expert into conforming his or her views with the party's interests.
- 3.2 A party or legal representative should be cautious not to have inappropriate communications when retaining or instructing an independent expert, or assisting an independent expert in the preparation of his or her evidence. However, it is important to note that there is no principle of law or practice and there is nothing in this practice note that obliges a party to embark on the costly task of engaging a "consulting expert" in order to avoid "contamination" of the expert who will give evidence. Indeed the Court would generally discourage such costly duplication.
- 3.3 Any witness retained by a party for the purpose of preparing a report or giving evidence in a proceeding as to an opinion held by the witness that is wholly or substantially based in the specialised knowledge of the witness<sup>1</sup> should, at the earliest opportunity, be provided with:
  - (a) a copy of this practice note, including the Code (see Annexure A); and
  - (b) all relevant information (whether helpful or harmful to that party's case) so as to enable the expert to prepare a report of a truly independent nature.
- 3.4 Any questions or assumptions provided to an expert should be provided in an unbiased manner and in such a way that the expert is not confined to addressing selective, irrelevant or immaterial issues.

<sup>&</sup>lt;sup>1</sup> Such a witness includes a "Court expert" as defined in r 23.01 of the Federal Court Rules. For the definition of "expert", "expert evidence" and "expert report" see the Dictionary, in Schedule 1 of the Federal Court Rules.

#### 4. ROLE AND DUTIES OF THE EXPERT WITNESS

- 4.1 The role of the expert witness is to provide relevant and impartial evidence in his or her area of expertise. An expert should never mislead the Court or become an advocate for the cause of the party that has retained the expert.
- 4.2 It should be emphasised that there is nothing inherently wrong with experts disagreeing or failing to reach the same conclusion. The Court will, with the assistance of the evidence of the experts, reach its own conclusion.
- 4.3 However, experts should willingly be prepared to change their opinion or make concessions when it is necessary or appropriate to do so, even if doing so would be contrary to any previously held or expressed view of that expert.

#### Harmonised Expert Witness Code of Conduct

- 4.4 Every expert witness giving evidence in this Court must read the *Harmonised Expert Witness Code of Conduct* (attached in Annexure A) and agree to be bound by it.
- 4.5 The Code is not intended to address all aspects of an expert witness' duties, but is intended to facilitate the admission of opinion evidence, and to assist experts to understand in general terms what the Court expects of them. Additionally, it is expected that compliance with the Code will assist individual expert witnesses to avoid criticism (rightly or wrongly) that they lack objectivity or are partisan.

#### 5. CONTENTS OF AN EXPERT'S REPORT AND RELATED MATERIAL

- 5.1 The contents of an expert's report must conform with the requirements set out in the Code (including clauses 3 to 5 of the Code).
- 5.2 In addition, the contents of such a report must also comply with r 23.13 of the Federal Court Rules. Given that the requirements of that rule significantly overlap with the requirements in the Code, an expert, unless otherwise directed by the Court, will be taken to have complied with the requirements of r 23.13 if that expert has complied with the requirements in the Code and has complied with the additional following requirements. The expert shall:
  - (a) acknowledge in the report that:
    - (i) the expert has read and complied with this practice note and agrees to be bound by it; and
    - the expert's opinions are based wholly or substantially on specialised knowledge arising from the expert's training, study or experience;
  - (b) identify in the report the questions that the expert was asked to address;
  - (c) sign the report and attach or exhibit to it copies of:
    - (i) documents that record any instructions given to the expert; and

- (ii) documents and other materials that the expert has been instructed to consider.
- 5.3 Where an expert's report refers to photographs, plans, calculations, analyses, measurements, survey reports or other extrinsic matter, these must be provided to the other parties at the same time as the expert's report.

#### 6. CASE MANAGEMENT CONSIDERATIONS

- 6.1 Parties intending to rely on expert evidence at trial are expected to consider between them and inform the Court at the earliest opportunity of their views on the following:
  - (a) whether a party should adduce evidence from more than one expert in any single discipline;
  - (b) whether a common expert is appropriate for all or any part of the evidence;
  - (c) the nature and extent of expert reports, including any in reply;
  - (d) the identity of each expert witness that a party intends to call, their area(s) of expertise and availability during the proposed hearing;
  - (e) the issues that it is proposed each expert will address;
  - (f) the arrangements for a conference of experts to prepare a joint-report (see Part 7 of this practice note);
  - (g) whether the evidence is to be given concurrently and, if so, how (see Part 8 of this practice note); and
  - (h) whether any of the evidence in chief can be given orally.
- 6.2 It will often be desirable, before any expert is retained, for the parties to attempt to agree on the question or questions proposed to be the subject of expert evidence as well as the relevant facts and assumptions. The Court may make orders to that effect where it considers it appropriate to do so.

#### 7. CONFERENCE OF EXPERTS AND JOINT-REPORT

- 7.1 Parties, their legal representatives and experts should be familiar with aspects of the Code relating to conferences of experts and joint-reports (see clauses 6 and 7 of the Code attached in Annexure A).
- 7.2 In order to facilitate the proper understanding of issues arising in expert evidence and to manage expert evidence in accordance with the overarching purpose, the Court may require experts who are to give evidence or who have produced reports to meet for the purpose of identifying and addressing the issues not agreed between them with a view to reaching agreement where this is possible ("conference of experts"). In an appropriate case, the Court may appoint a registrar of the Court or some other suitably qualified person ("Conference Facilitator") to act as a facilitator at the conference of experts.

- 7.3 It is expected that where expert evidence may be relied on in any proceeding, at the earliest opportunity, parties will discuss and then inform the Court whether a conference of experts and/or a joint-report by the experts may be desirable to assist with or simplify the giving of expert evidence in the proceeding. The parties should discuss the necessary arrangements for any conference and/or joint-report. The arrangements discussed between the parties should address:
  - (a) who should prepare any joint-report;
  - (b) whether a list of issues is needed to assist the experts in the conference and, if so, whether the Court, the parties or the experts should assist in preparing such a list;
  - (c) the agenda for the conference of experts; and
  - (d) arrangements for the provision, to the parties and the Court, of any joint-report or any other report as to the outcomes of the conference ("**conference report**").

#### **Conference of Experts**

- 7.4 The purpose of the conference of experts is for the experts to have a comprehensive discussion of issues relating to their field of expertise, with a view to identifying matters and issues in a proceeding about which the experts agree, partly agree or disagree and why. For this reason the conference is attended only by the experts and any Conference Facilitator. Unless the Court orders otherwise, the parties' lawyers will not attend the conference but will be provided with a copy of any conference report.
- 7.5 The Court may order that a conference of experts occur in a variety of circumstances, depending on the views of the judge and the parties and the needs of the case, including:
  - (a) while a case is in mediation. When this occurs the Court may also order that the outcome of the conference or any document disclosing or summarising the experts' opinions be confidential to the parties while the mediation is occurring;
  - (b) before the experts have reached a final opinion on a relevant question or the facts involved in a case. When this occurs the Court may order that the parties exchange draft expert reports and that a conference report be prepared for the use of the experts in finalising their reports;
  - (c) after the experts' reports have been provided to the Court but before the hearing of the experts' evidence. When this occurs the Court may also order that a conference report be prepared (jointly or otherwise) to ensure the efficient hearing of the experts' evidence.
- 7.6 Subject to any other order or direction of the Court, the parties and their lawyers must not involve themselves in the conference of experts process. In particular, they must not seek to encourage an expert not to agree with another expert or otherwise seek to influence the outcome of the conference of experts. The experts should raise any queries they may have in relation to the process with the Conference Facilitator (if one has been appointed) or in

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accordance with a protocol agreed between the lawyers prior to the conference of experts taking place (if no Conference Facilitator has been appointed).

- 7.7 Any list of issues prepared for the consideration of the experts as part of the conference of experts process should be prepared using non-tendentious language.
- 7.8 The timing and location of the conference of experts will be decided by the judge or a registrar who will take into account the location and availability of the experts and the Court's case management timetable. The conference may take place at the Court and will usually be conducted in-person. However, if not considered a hindrance to the process, the conference may also be conducted with the assistance of visual or audio technology (such as via the internet, video link and/or by telephone).
- 7.9 Experts should prepare for a conference of experts by ensuring that they are familiar with all of the material upon which they base their opinions. Where expert reports in draft or final form have been exchanged prior to the conference, experts should attend the conference familiar with the reports of the other experts. Prior to the conference, experts should also consider where they believe the differences of opinion lie between them and what processes and discussions may assist to identify and refine those areas of difference.

#### Joint-report

- 7.10 At the conclusion of the conference of experts, unless the Court considers it unnecessary to do so, it is expected that the experts will have narrowed the issues in respect of which they agree, partly agree or disagree in a joint-report. The joint-report should be clear, plain and concise and should summarise the views of the experts on the identified issues, including a succinct explanation for any differences of opinion, and otherwise be structured in the manner requested by the judge or registrar.
- 7.11 In some cases (and most particularly in some native title cases), depending on the nature, volume and complexity of the expert evidence a judge may direct a registrar to draft part, or all, of a conference report. If so, the registrar will usually provide the draft conference report to the relevant experts and seek their confirmation that the conference report accurately reflects the opinions of the experts expressed at the conference. Once that confirmation has been received the registrar will finalise the conference report and provide it to the intended recipient(s).

#### 8. CONCURRENT EXPERT EVIDENCE

- 8.1 The Court may determine that it is appropriate, depending on the nature of the expert evidence and the proceeding generally, for experts to give some or all of their evidence concurrently at the final (or other) hearing.
- 8.2 Parties should familiarise themselves with the *Concurrent Expert Evidence Guidelines* (attached in Annexure B). The Concurrent Evidence Guidelines are not intended to be exhaustive but indicate the circumstances when the Court might consider it appropriate for

concurrent expert evidence to take place, outline how that process may be undertaken, and assist experts to understand in general terms what the Court expects of them.

8.3 If an order is made for concurrent expert evidence to be given at a hearing, any expert to give such evidence should be provided with the Concurrent Evidence Guidelines well in advance of the hearing and should be familiar with those guidelines before giving evidence.

#### 9. FURTHER PRACTICE INFORMATION AND RESOURCES

- 9.1 Further information regarding Expert Evidence and Expert Witnesses is available on the Court's website.
- 9.2 Further information to assist litigants, including a range of helpful guides, is also available on the Court's website. This information may be particularly helpful for litigants who are representing themselves.

J L B ALLSOP Chief Justice 25 October 2016

# Annexure A HARMONISED EXPERT WITNESS CODE OF CONDUCT<sup>2</sup>

#### **APPLICATION OF CODE**

- 1. This Code of Conduct applies to any expert witness engaged or appointed:
  - (a) to provide an expert's report for use as evidence in proceedings or proposed proceedings; or
  - (b) to give opinion evidence in proceedings or proposed proceedings.

#### **GENERAL DUTIES TO THE COURT**

2. An expert witness is not an advocate for a party and has a paramount duty, overriding any duty to the party to the proceedings or other person retaining the expert witness, to assist the Court impartially on matters relevant to the area of expertise of the witness.

#### CONTENT OF REPORT

- 3. Every report prepared by an expert witness for use in Court shall clearly state the opinion or opinions of the expert and shall state, specify or provide:
  - (a) the name and address of the expert;
  - (b) an acknowledgment that the expert has read this code and agrees to be bound by it;
  - (c) the qualifications of the expert to prepare the report;
  - (d) the assumptions and material facts on which each opinion expressed in the report is based [a letter of instructions may be annexed];
  - (e) the reasons for and any literature or other materials utilised in support of such opinion;
  - (f) (if applicable) that a particular question, issue or matter falls outside the expert's field of expertise;
  - (g) any examinations, tests or other investigations on which the expert has relied, identifying the person who carried them out and that person's qualifications;
  - (h) the extent to which any opinion which the expert has expressed involves the acceptance of another person's opinion, the identification of that other person and the opinion expressed by that other person;
  - a declaration that the expert has made all the inquiries which the expert believes are desirable and appropriate (save for any matters identified explicitly in the report), and that no matters of significance which the expert regards as relevant have, to the

<sup>&</sup>lt;sup>2</sup> Approved by the Council of Chief Justices' Rules Harmonisation Committee

knowledge of the expert, been withheld from the Court;

- (j) any qualifications on an opinion expressed in the report without which the report is or may be incomplete or inaccurate;
- (k) whether any opinion expressed in the report is not a concluded opinion because of insufficient research or insufficient data or for any other reason; and
- (I) where the report is lengthy or complex, a brief summary of the report at the beginning of the report.

#### SUPPLEMENTARY REPORT FOLLOWING CHANGE OF OPINION

- 4. Where an expert witness has provided to a party (or that party's legal representative) a report for use in Court, and the expert thereafter changes his or her opinion on a material matter, the expert shall forthwith provide to the party (or that party's legal representative) a supplementary report which shall state, specify or provide the information referred to in paragraphs (a), (d), (e), (g), (h), (i), (j), (k) and (I) of clause 3 of this code and, if applicable, paragraph (f) of that clause.
- 5. In any subsequent report (whether prepared in accordance with clause 4 or not) the expert may refer to material contained in the earlier report without repeating it.

#### DUTY TO COMPLY WITH THE COURT'S DIRECTIONS

- 6. If directed to do so by the Court, an expert witness shall:
  - (a) confer with any other expert witness;
  - (b) provide the Court with a joint-report specifying (as the case requires) matters agreed and matters not agreed and the reasons for the experts not agreeing; and
  - (c) abide in a timely way by any direction of the Court.

#### **CONFERENCE OF EXPERTS**

- 7. Each expert witness shall:
  - (a) exercise his or her independent judgment in relation to every conference in which the expert participates pursuant to a direction of the Court and in relation to each report thereafter provided, and shall not act on any instruction or request to withhold or avoid agreement; and
  - (b) endeavour to reach agreement with the other expert witness (or witnesses) on any issue in dispute between them, or failing agreement, endeavour to identify and clarify the basis of disagreement on the issues which are in dispute.

### ANNEXURE B

## **CONCURRENT EXPERT EVIDENCE GUIDELINES**

#### **APPLICATION OF THE COURT'S GUIDELINES**

1. The Court's Concurrent Expert Evidence Guidelines ("Concurrent Evidence Guidelines") are intended to inform parties, practitioners and experts of the Court's general approach to concurrent expert evidence, the circumstances in which the Court might consider expert witnesses giving evidence concurrently and, if so, the procedures by which their evidence may be taken.

#### **OBJECTIVES OF CONCURRENT EXPERT EVIDENCE TECHNIQUE**

- 2. The use of concurrent evidence for the giving of expert evidence at hearings as a case management technique<sup>3</sup> will be utilised by the Court in appropriate circumstances (see r 23.15 of the *Federal Court Rules 2011* (Cth)). Not all cases will suit the process. For instance, in some patent cases, where the entire case revolves around conflicts within fields of expertise, concurrent evidence may not assist a judge. However, patent cases should not be excluded from concurrent expert evidence processes.
- 3. In many cases the use of concurrent expert evidence is a technique that can reduce the partisan or confrontational nature of conventional hearing processes and minimises the risk that experts become "opposing experts" rather than independent experts assisting the Court. It can elicit more precise and accurate expert evidence with greater input and assistance from the experts themselves.
- 4. When properly and flexibly applied, with efficiency and discipline during the hearing process, the technique may also allow the experts to more effectively focus on the critical points of disagreement between them, identify or resolve those issues more quickly, and narrow the issues in dispute. This can also allow for the key evidence to be given at the same time (rather than being spread across many days of hearing); permit the judge to assess an expert more readily, whilst allowing each party a genuine opportunity to put and test expert evidence. This can reduce the chance of the experts, lawyers and the judge misunderstanding the opinions being expressed by the experts.
- 5. It is essential that such a process has the full cooperation and support of all of the individuals involved, including the experts and counsel involved in the questioning process. Without that cooperation and support the process may fail in its objectives and even hinder the case management process.

<sup>&</sup>lt;sup>3</sup> Also known as the "hot tub" or as "expert panels".

#### CASE MANAGEMENT

- 6. Parties should expect that, the Court will give careful consideration to whether concurrent evidence is appropriate in circumstances where there is more than one expert witness having the same expertise who is to give evidence on the same or related topics. Whether experts should give evidence concurrently is a matter for the Court, and will depend on the circumstances of each individual case, including the character of the proceeding, the nature of the expert evidence, and the views of the parties.
- 7. Although this consideration may take place at any time, including the commencement of the hearing, if not raised earlier, parties should raise the issue of concurrent evidence at the first appropriate case management hearing, and no later than any pre-trial case management hearing, so that orders can be made in advance, if necessary. To that end, prior to the hearing at which expert evidence may be given concurrently, parties and their lawyers should confer and give general consideration as to:
  - (a) the agenda;
  - (b) the order and manner in which questions will be asked; and
  - (c) whether cross-examination will take place within the context of the concurrent evidence or after its conclusion.
- 8. At the same time, and before any hearing date is fixed, the identity of all experts proposed to be called and their areas of expertise is to be notified to the Court by all parties.
- 9. The lack of any concurrent evidence orders does not mean that the Court will not consider using concurrent evidence without prior notice to the parties, if appropriate.

#### **CONFERENCE OF EXPERTS & JOINT-REPORT OR LIST OF ISSUES**

- 10. The process of giving concurrent evidence at hearings may be assisted by the preparation of a joint-report or list of issues prepared as part of a conference of experts.
- 11. Parties should expect that, where concurrent evidence is appropriate, the Court may make orders requiring a conference of experts to take place or for documents such as a joint-report to be prepared to facilitate the concurrent expert evidence process at a hearing (see Part 7 of the Expert Evidence Practice Note).

#### PROCEDURE AT HEARING

- 12. Concurrent expert evidence may be taken at any convenient time during the hearing, although it will often occur at the conclusion of both parties' lay evidence.
- 13. At the hearing itself, the way in which concurrent expert evidence is taken must be applied flexibly and having regard to the characteristics of the case and the nature of the evidence to be given.
- 14. Without intending to be prescriptive of the procedure, parties should expect that, when evidence is given by experts in concurrent session:

- (a) the judge will explain to the experts the procedure that will be followed and that the nature of the process may be different to their previous experiences of giving expert evidence;
- (b) the experts will be grouped and called to give evidence together in their respective fields of expertise;
- (c) the experts will take the oath or affirmation together, as appropriate;
- (d) the experts will sit together with convenient access to their materials for their ease of reference, either in the witness box or in some other location in the courtroom, including (if necessary) at the bar table;
- (e) each expert may be given the opportunity to provide a summary overview of their current opinions and explain what they consider to be the principal issues of disagreement between the experts, as they see them, in their own words;
- (f) the judge will guide the process by which evidence is given, including, where appropriate:
  - (i) using any joint-report or list of issues as a guide for all the experts to be asked questions by the judge and counsel, about each issue on an issue-by-issue basis;
  - (ii) ensuring that each expert is given an adequate opportunity to deal with each issue and the exposition given by other experts including, where considered appropriate, each expert asking questions of other experts or supplementing the evidence given by other experts;
  - (iii) inviting legal representatives to identify the topics upon which they will crossexamine;
  - (iv) ensuring that legal representatives have an adequate opportunity to ask all experts questions about each issue. Legal representatives may also seek responses or contributions from one or more experts in response to the evidence given by a different expert; and
  - (v) allowing the experts an opportunity to summarise their views at the end of the process where opinions may have been changed or clarifications are needed.
- 15. The fact that the experts may have been provided with a list of issues for consideration does not confine the scope of any cross-examination of any expert. The process of cross-examination remains subject to the overall control of the judge.
- 16. The concurrent session should allow for a sensible and orderly series of exchanges between expert and expert, and between expert and lawyer. Where appropriate, the judge may allow for more traditional cross-examination to be pursued by a legal representative on a particular issue exclusively with one expert. Where that occurs, other experts may be asked to comment on the evidence given.
- 17. Where any issue involves only one expert, the party wishing to ask questions about that issue should let the judge know in advance so that consideration can be given to whether

arrangements should be made for that issue to be dealt with after the completion of the concurrent session. Otherwise, as far as practicable, questions (including in the form of cross-examination) will usually be dealt with in the concurrent session.

18. Throughout the concurrent evidence process the judge will ensure that the process is fair and effective (for the parties and the experts), balanced (including not permitting one expert to overwhelm or overshadow any other expert), and does not become a protracted or inefficient process.

## **CURRICULUM VITAE of**

## Dr MICHAEL ROBERTSON, Ph.D. (Med) (MTIAFT, MSOFT, MFACTA, MANZFSS) Consulting Pharmacologist, Forensic Toxicologist and Chemist

#### **PROFESSIONAL EXPERIENCE:**

#### **INDEPENDENT FORENSIC CONSULTING, Australia**

#### 2001 – Director and Senior Consultant

Dr Robertson is a pharmacologist; forensic toxicologist and chemist with more than 30 years professional experience. He routinely evaluates and provides opinions on all aspects of drug testing and result interpretation; aspects of drug manufacture; affects of drugs including alcohol on human performance including driving and workplace accidents etc.; the role of drugs in deaths and significant injuries; investigation of human poisonings and chemical exposures and interpretation of drug use in the workplace. He has performed research in the field of pharmacology and toxicology including methods of drug testing; affects of drugs on humans; interpretation of drug testing results; evaluation of the safety and efficacy of drugs on humans including regulatory compliance. Dr Robertson has studied the affects and effects of drugs and poisons on humans and animals including mechanism of action; desirable effects and non-desirable or adverse effects. Dr Robertson has evaluated matters of drug manufacture; supply and distribution including evaluating current or prior operation of clandestine laboratories; drug importation and possession matters. Dr Robertson has assigned, supervised, performed, certified and interpreted hundreds of chemical and toxicological analyses for a range of clients including pathology and forensic laboratories, drug testing organisations, law-enforcement, private individuals, pharmaceutical companies, regulatory agencies and legal professionals. Dr Robertson has more than 15 years as an analyst and analytical chemist both performing analyses and supervising and managing laboratories.

Currently the Director and Senior Consultant at Independent Forensic Consulting Pty Ltd (IFC), Dr Robertson provides independent advice and expert opinions in legal matters and routinely prepares expert reports and testifies throughout Australia and internationally in a range of medico-legal matters associated with:

- Criminal Law (including drug facilitated sexual assault; DUI and DUID; cause or contribution to death; human performance and behaviour; poisonings; drug importation, possession, supply and manufacturing; and matters relating to the legal status of drugs including Synthetic *Cannabis*, Synthetic Stimulants and issues associated with analogue provisions);
- Family Law (including the interpretation of urine testing and results, hair testing and results; Liver Function Tests (LFT), Carbohydrate Deficient Transferrin (CDT) and Ethyl Glucuronide (EtG) testing and result interpretation);
- Personal Injury, Medical Negligence, CTP, Insurance claims;
- Doping disputes and investigations including professional athletes (ASADA; WADA) and Steward enquiries involving the racing industry (jockeys, riders, racehorses, harness racing or greyhounds);

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- Workplace Accidents (involving the cause and contribution of drugs and alcohol to an incident); together with matters including exposure to chemicals and other poisons;
- Workplace Disputes (including the interpretation of urine, oral fluid and/or hair test results and compliance with acceptable drug testing procedures).

Dr. Robertson, a member of many professional organisations, has authored more than a dozen peer-reviewed papers in recognised international journals and is an invited reviewer for the international journals Forensic Science International and Forensic Science, Medicine and Pathology. He routinely presents at national and international conferences and to Universities, professional and civic groups including law firms and Law Societies, Police, Prosecutors, Plaintiff and Defence lawyers.

#### 2011 – Consulting Toxicologist to Industry and National Workplace Drug Testing Organisations

Dr Robertson provides independent advice to a range of national drug testing companies and other private, government and union organisations relating to issues that include:

- The strengths and weakness of urine and oral fluid testing strategies;
- Interpretation of laboratory results of blood, oral fluid, and urine drug findings;
- Evaluation and/or recommending urine, oral fluid, drug and alcohol testing regimes, policies and / or testing procedures to ensure compliance to AS/NZS 4308:2008 and / or AS/NZS 4760-2019.

Dr Robertson provides consultation and evaluates matters of forensic concern including:

- Disputed drug testing results;
- Compliance to procedures and Australian Standards;
- Workplace disputes and provision of testimony in Courts of Law and Fair Work Australia.

Dr Robertson provides expertise in all drug, chemical and alcohol related matters including assessment of impairment; drug-use patterns; environmental and workplace exposure matters.

#### 2011 – National Advisor for Workplace Drug & Alcohol Testing Programs

Dr Robertson is the immediate past current Chair of the Standards Australia committee (CH-039) evaluating the testing of drugs in oral fluid (AS/NZS 4760-2019).

Dr Robertson is the current Chair of the Standards Australia committee (CH-039) reviewing and updating the testing of drugs in urine (AS/NZS 4308:2008).

Provides independent expertise in compliant alcohol and drug testing policies and procedures including compliance to AS/NZS 4308:2008 and AS/NZS 4760-2019.

- Facilitates and provides advice on policy development together with the pros and cons of urine and oral fluid testing;
- Facilitates formal and informal negotiations relating to urine and oral fluid testing policies, procedures and compliance with the current Australian Standards.
- Provides education and awareness to private and public organisations on the strengths and weaknesses of different testing regimes i.e. urine vs. oral fluid.

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#### **HOSPIRA** (Faulding), Australia

#### 2002 – 2010 Senior Scientist and Laboratory Manager

Employed in a range of analytical and managerial functions, including the testing and evaluation of samples including liquid and solid dosage forms; raw materials and dispersions. Analysis included the testing and evaluation of purity, excipients and impurities profiles and utilised a range of analytical techniques such as liquid chromatography (LC); gas-chromatography (GC) with or without mass-spectrometry (MS) detection.

Managed, lead and supervised teams of scientists in the development, testing and reporting of drug testing results to internal and external stake holders, clients and regulatory agencies.

#### **OFFICE of the MEDICAL EXAMINER, California, USA**

#### 2000

#### Forensic Toxicology Laboratory Manager and Chief Toxicologist

Managed all laboratory functions including those of scientific, financial and personnel within the forensic toxicology laboratory. Assigned, supervised, performed and certified testing of biological specimens and exhibits for analytes of toxicological and investigational interest, especially in relation to matters of law. Analysis included the testing and evaluation of identity and purity of drugs and utilised a range of analytical techniques such as liquid chromatography (LC); gas-chromatography (GC) with or without mass-spectrometry (MS); flame ionization detection (FID); nitrogen phosphorous detection (NPD); thin layer chromatography (TLC); ultra-violet (UV) and electrochemical detection (ECD) techniques; immunoassay screening (IA) among others. Ensured all forensic evaluations were conducted in accordance with relevant scientific and forensic guidelines and principles and industry best practice. Provided oral and written reports and expert opinions to pathologists; law enforcement and other interested parties as to the validity and significance of analytical findings. Provided expert opinions on matters of toxicological relevance. Advised, consulted and where necessary participated with pathologists, management, local and state governments on issues regarding forensic toxicology, drug policy and legislation.

#### NATIONAL MEDICAL SERVICES, INC., Pennsylvania, USA

#### **1996 - 2000** Forensic Toxicologist, Senior Scientist and Director of Expert Services

Employed in a range of analytical and managerial functions. Assigned, supervised, performed and certified testing of specimens for analytes of scientific and investigational interest, especially in relation to matters of law. Specimens included biological samples (e.g. blood, urine, hair etc.) together with seized drugs when required.

Analysis included the testing and evaluation of identity and purity and utilised a range of analytical techniques such as liquid chromatography (LC); gas-chromatography (GC) with or without mass-spectrometry (MS); flame ionization detection (FID); nitrogen phosphorous detection (NPD); atomic absorption (AA); inductively couple plasma (ICP); thin layer chromatography (TLC); ultra-violet (UV) and electrochemical detection (ECD) techniques; immunoassay screening among others.

#### Page 4

Managed, lead and supervised teams of scientists, chemists and toxicologists in the development, testing and reporting of drug testing results to internal and external stake holders, clients and regulatory agencies.

Assigned, supervised and certified drug and chemical testing in relation to matters of law. Ensured all testing met appropriate scientific and forensic standards. Provided oral and written results and expert opinions to Courts of law throughout the USA. Performed research in matters of pharmacological and toxicological concern for education, publication and presentation.

#### VICTORIAN INSTITUTE OF FORENSIC MEDICINE (VIFM), Melbourne, Australia

#### 1991 – 1996 Forensic Scientist

Analysed samples for drugs and chemicals using state of the art instrumentation.

Performed research and development in drug testing methods. Evaluated various sample types including biological and non-biological samples. Analysis included the testing and evaluation of samples for drug content; purity; impurity profiles utilising a range of analytical techniques such as liquid chromatography; gas-chromatography; flame ionization detection (FID); nitrogen phosphorous detection (NPD); atomic absorption (AA); ultra-violet and electrochemical detection techniques (ECD); immunoassay screening (IA) among others.

Performed research in the role of drugs and alcohol in motor vehicle crashes.

## **EDUCATION: Post-Doctoral Fellow,** Forensic Toxicology, National Medical Services Inc., Pennsylvania, USA

Ph.D., Medicine (VIFM), Monash University, Melbourne, Australia

B.Sc. (Hon), Pharmacology / Toxicology, Monash University, Melbourne, Australia

#### **SCHOLARSHIPS and AWARDS:**

- Postdoctoral Fellowship, National Medical Services Inc.
- Monash University Graduate Scholarship

#### **INVITED LECTURESHIPS:**

- Forensic Toxicology Box Hill Institute, Melbourne, Australia
- Pharmacology / Forensic Toxicology California State University, Los Angeles, California, USA
- Forensic Toxicology National University, San Diego, California, USA
- Toxicology Thomas Jefferson University, Philadelphia, Pennsylvania, USA

**PROFESSIONAL SOCIETIES:** 

Member	The Australian and New Zealand Forensic Science Society (ANZFSS)
Member	The International Association of Forensic Toxicologists (TIAFT)
Member	Society of Forensic Toxicologists (SOFT)
Member	Forensic and Clinical Toxicologists of Australia (FACTA)
Member	Society of Hair Testing (SoHT)

#### **APPOINTMENTS and COMMITTEES:**

- TIAFT Committee for Therapeutic / Toxic Drug Levels (2011 present)
- Scientific Reviewer, Forensic Science International (2003 present)
- Scientific Reviewer, Forensic Science, Medicine and Pathology (2014 present)
- Drugs and Driving Committee, Society of Forensic Toxicologists (2000 2004)
- Drug Facilitated Sexual Assault Committee, Society of Forensic Toxicologists (2000 2004)
- Scientific Advisory Board, Society of Forensic Toxicologists, Annual Meeting 2000, 2003, 2006, 2011
- FACTA Technical Working Group, Oral Fluid Testing (10/2014 present)
- FACTA Committee for Hair testing (6/2021 present)
- Chair: Standards Australia Oral Fluids Committee CH-039 (2014 2019)
- Chair: Standards Australia Urine Drug Testing Committee CH-039 (2019 present).

#### **BOOK CHAPTERS:**

- 1. Drug Facilitated Sexual Assault A Forensic Handbook. Lebeau and Mozayani eds. Academic Press, NY. Chapter 4; Rohypnol and other benzodiazepines. **Robertson MD**, Raymon L.
- 2. Drug Facilitated Sexual Assault A Forensic Handbook. Lebeau and Mozayani eds. Academic Press, NY. Chapter 6; Hallucinogens. Raymon L, **Robertson MD.**

#### **PUBLICATIONS** (edited list; a full list can be provided upon request):

- 1. **Robertson, MD** and Staikos, V. Segmental Analysis of Hair in an Alleged Drug-Facilitated Sexual Assault The pros and cons of segmental analysis and why results are rarely black and white, TIAFT Bulletin, Vol. 41(3) pp.18-20, 2011.
- 2. **Robertson, MD.** Medical Misadventure: *Steroid Induced Toxicity and Associated Psychosis A Case Study*, ToxTalk, Vol. 31(3) p. 9, 2007.
- 3. Drummer OH, Gerostamoulos J, Batziris H, Chu M, Caplehorn JR, **Robertson MD**, Swann P. *The involvement of drugs in drivers of motor vehicles killed in Australian road traffic crashes*, Accident Analysis and Prevention, Vol. 36(2) pp. 239-48, 2004.
- 4. Drummer OH, Gerostamoulos J, Batziris H, Chu M, Caplehorn JR, **Robertson MD**, Swann P. *The incidence of drugs in drivers killed in Australian road traffic crashes*, Forensic Science International, Vol. 143(2-3) pp. 154-62, 2003.
- 5. **Robertson, MD**, and Marinetti, LJ. *Carisoprodol Effects on Human Performance and Behaviour,* Forensic Science Review, Vol. 15(1) pp. 1-9, 2003.

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- 6. **Robertson, MD**, and McMullin, MM. *Olanzapine Concentrations in Clinical Serum and Postmortem Blood Specimens - When does Therapeutic become Toxic*, Journal of Forensic Sciences, Vol. 45(2) pp. 418-421, 2000.
- 7. **Robertson, MD.** *Detection of Date Rape Compounds*, Emergency Medicine News, Dec 2000.
- 8. **Robertson, MD.** *Mirtazepine Concentrations in Clinical Serum and Postmortem Whole Blood Specimens,* American Academy of Forensic Sciences: News and Views, pp. 4-5, June 1999.
- 9. **Robertson, MD.** Detection of Lormetazepam in Hair Following a Sexual Assault, Society of Forensic Toxicologists: Tox Talk, Vol. 23(2), p. 4, 1999.
- LeBeau, M, Andollo, W, Hearn, WL, Baselt, R, Cone, E, Finkle, B, Fraser, F, Jenkins, A, Mayer, J, Negrusz, A, Poklis, A, Raymon, L, **Robertson, MD** and Saady, J. *Recommendations for the Toxicological Investigations of Drug-Facilitated Sexual Assaults*, Journal of Forensic Sciences, Vol. 44(1) pp. 227-230, 1999.
- 11. **Robertson, MD** and Drummer, OH. *Postmortem Distribution and Redistribution of Nitrobenzodiazepines in Man, Journal of Forensic Sciences, Vol.* 43(1) pp. 9-13, 1998.
- 12. **Robertson, MD** and Drummer, OH. *Stability of Nitrobenzodiazepines in Postmortem Blood*, Journal of Forensic Sciences, Vol. 43(1) pp. 5-8, 1998.
- 13. **Robertson, MD.** *Flunitrazepam: Does its absence mean it is not present?*, Society of Forensic Toxicologists: Tox Talk, Vol. 20(3) p. 8, 1996.
- 14. **Robertson, MD** and Drummer, OH. *Distribution and Redistribution of Nitrobenzodiazepines in Postmortem tissues.* Contributions to Forensic Toxicology, 1995.
- 15. **Robertson, MD** and Drummer, OH. *A High Performance Liquid Chromatographic procedure for the measurement of Nitrobenzodiazepines and their 7-Amino metabolites in Blood, Journal of Chromatography, Vol. 667, pp. 179-184, 1995.*
- 16. **Robertson, MD** and Drummer, OH. *Post-Mortem Drug Metabolism by Bacteria*, Journal of Forensic Sciences, Vol. 40(3) pp. 382-386, 1995.
- 17. **Robertson, MD** and Drummer, OH. *Postmortem Bioconversion of Drugs*. Contributions to Forensic Toxicology, 1994.
- 18. **Robertson, MD** and Drummer, OH. *Responsibility Analysis: A Methodology to Study the Effects of Drugs in Driving,* Accident Analysis and Prevention, Vol. 26(2) pp. 243-247, 1994.
- 19. **Robertson, MD** and Drummer, OH. *A Performance Decrement Analysis to determine drug involvement in motor vehicle fatalities.* Clinical and Experimental Pharmacology and Physiology, 1991.

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#### ABSTRACTS and PRESENTATIONS (edited list; a full list can be provided upon request):

- Workplace Drug Testing in Australia The Australian Approach to Onsite Drug Testing. Robertson, MD.
   The International Association of Forensic Toxicologists, August 2016. Brisbane, Australia.
- Is synthetic cannabis legal in Australia.....it depends! Where science and the law converge with some interesting results. Robertson, MD.
   The International Association of Forensic Toxicologists, August 2016. Brisbane, Australia.
- 3. Case Report Segmental Analysis of Hair in an Alleged Drug-Facilitated Sexual Assault The Pros and Cons of Segmental Analysis and why Results are rarely Black and White. **Robertson MD** and Staikos V. Forensic and Clinical Toxicology Association, August 2011. Melbourne, Australia.
- 4. *The Role of the Toxicologist.* **Robertson, MD.** Australian Lawyers Alliance, June, 2007. Melbourne, Australia.
- New Drink-Driving Defences, Culpable Driving Decisions and Forensic Consulting. Murphy B QC, Walsh-Buckley W, and Robertson, MD. Law Institute of Victoria, July, 2006. Melbourne, Australia.
- 6. *A Death due to Inhalation of Nitrogen Trifluoride*. Ng, PS, Vasallo, PO and **Robertson, MD**. Society of Forensic Toxicologists (SOFT), October, 1999. Puerto Rico.
- Endogenous Gamma-Hydroxybutyrate (GHB) Concentrations in Clinical and Postmortem Blood, Urine and Serum Specimens. Robertson, MD.
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- 8. *A Fatal Interaction between Fluvoxamine and Thioridazine*. **Robertson, MD.** Society of Forensic Toxicologists (SOFT), October, 1999. Puerto Rico.
- 9. *Death due to Mirtazapine (Remeron) Toxicity.* **Robertson, MD**, Ng, PS and Gore, SB. Society of Forensic Toxicologists (SOFT), October, 1999. Puerto Rico.
- 10. *Detection of MDMA in Hair by LC/MS/MS*. Dunn, WA and **Robertson, MD**. Society of Forensic Toxicologists (SOFT), October, 1999. Puerto Rico.
- Olanzapine concentrations in clinical serum and forensic blood specimens When does therapeutic become toxic? Robertson, MD.
   Society of Forensic Toxicologists and The International Association of Forensic Toxicologists, October, 1998. Albuquerque, New Mexico, USA.
- Urine Adulteration: Why is this urine "Klear"? How much Klear is required to produce a failed GC/MS analysis for 9-carboxy-THC and opiates? Robertson, MD.
   Society of Forensic Toxicologists and The International Association of Forensic Toxicologists, October, 1998. Albuquerque, New Mexico, USA.
- 13. *Deaths Involving Flunitrazepam: An Australian Experience,* **Robertson, MD.** Society of Forensic Toxicologists (SOFT), October, 1996. Denver, Colorado, USA.

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- 14. *Stability of Nitrobenzodiazepines in Post-Mortem Blood.* **Robertson, MD** and Drummer, OH. The International Association of Forensic Toxicologists (TIAFT) and Environmental Toxicology, August, 1995. Thessaloniki, GREECE.
- Distribution and Redistribution of Nitrobenzodiazepines in Post-mortem tissues.
   Robertson, MD and Drummer, OH.
   The International Association of Forensic Toxicologists (TIAFT) and Environmental Toxicology, August, 1995. Thessaloniki, GREECE.
- The Use of Responsibility Analysis to Determine the Contribution of Drugs to Accident Causation. Drummer, OH, Gerostamoulos, J and Robertson, MD. The International Association of Forensic Toxicologists (TIAFT) and Society of Forensic Toxicologists (SOFT), 1994 Joint Congress, October – November, 1994. Tampa, Florida, USA.
- Postmortem Drug Metabolism by Bacteria. Robertson, MD and Drummer, OH. International Association of Forensic Sciences (IAFS) 13<sup>th</sup> International Meeting, August, 1993. Dusseldorf, GERMANY.
- Postmortem Bioconversion of Drugs. Robertson, MD and Drummer, OH. The International Association of Forensic Toxicologists (TIAFT) 31<sup>st</sup> International Meeting, August, 1993. Leipzig, GERMANY.
- Drugs and Driving in Victoria, Cordner, SM and Robertson, MD.
   20th International Medical Advisory Conference, October, 1991. Gold Coast, AUSTRALIA.
- 20. *Drugs and Driving in Victoria*, Cordner, SM and **Robertson, MD**. Proceedings of the 20th International Medical Advisory Conference, 1991.

#### **INVITED PRESENTATIONS (edited list, a full list can be provided upon request):**

- Drugs, Alcohol and Family Breakdown
   2017 Family Law Pathways Network Conference. Bendigo, Australia
- What do hair results tell us about an individual's drug use?
   2016 Travel Medicine Alliance. Brisbane, Australia
- Alcohol and Other Drugs Contribution and Causation: How to Establish their role in Personal injury Matters
   2012 Australian Lawyers Alliance QLD State Conference. Gold Coast, Australia
- What family lawyers need to know about drug testing and toxicology reports 27<sup>th</sup> Annual Family Law Residential, 2012. Ashmore, Australia.
- 5. Understanding the Limitations of the Analyses Advances in the Toxicological Investigation of Drug-Facilitated Sexual Assault – Workshop. American Academy of Forensic Sciences. Seattle, Washington, USA.
- 6. Overview of Newer Drugs of Abuse The Non-Specialists Review of Forensic Toxicology: Revisiting the Old and Addressing the New – Workshop. American Academy of Forensic Sciences. Seattle, Washington, USA.

 Pharmacodynamics and Analytical Confirmation Techniques Benzodiazepines: Pharmacology and Analytical Challenges – Workshop. Society of Forensic Toxicologists. Milwaukee, Wisconsin, USA.

- Pharmacology and Toxicology of Rave Drugs
   LA Rave: Current Trends in Rave Drugs, Pharmacology and Toxicology Workshop. California Association of Toxicologists. Los Angeles, California, USA.
- 9. *Drugs, Drugging and the Drugged* Northumberland County Police and Detectives, Pennsylvania, USA.
- 10. *Involvement of Drugs in Fatal Accident Causation* Drugs, Driving, and Traffic Safety: Update – Workshop. Society of Forensic Toxicologists. Puerto Rico.
- 11. Before Interpretation comes Understanding: The Role of the Toxicologist in Forensic Investigations. Washington State Patrol. Seattle, Washington, USA.
- 12. *Date Rape Drugs* Staten Island University Hospital. New York, N.Y., USA.
- Role of Drugs in Motor Vehicle Fatalities. National Police Workshop on Behavioral Testing for Drugs. Victorian Institute of Forensic Medicine. Melbourne, AUSTRALIA.