IN THE CORONERS COURT OF VICTORIA AT MELBOURNE

Court Reference: COR 2012 4882

FINDING INTO DEATH WITHOUT INQUEST

Form 38 Rule 60(2)
Section 67 of the Coroners Act 2008

I, CAITLIN ENGLISH, Coroner having investigated the death of Jonas Jvirblis

without holding an inquest:

find that the identity of the deceased was Jonas Jvirblis born on 6 November 1988 and the death occurred on 17 November 2012 at Monash University, Parkville Campus, Victoria

from:

- 1 (a) COMBINED DRUG TOXICITY
- 2 (a) SARCOIDOSIS

Pursuant to section 67(1) of the Coroners Act 2008, there is a public interest to be served in making findings with respect to the following circumstances:

- 1. Jonas Jvirblis was 23 years of age at the time of his death. He resided in Fitzroy, Victoria, with his girlfriend, Sarah Cotterill. Ms Cotterill was studying in New Zealand at the time of Mr Jvirblis' death. Mr Jvirblis was the younger of two children to his parents Vida and Gintas who separated when he was approximately 12. Mr Jvirblis was a PhD student in pharmaceutical science at Monash University.
- 2. A police investigation was conducted into the circumstances of his death.
- 3. A brief prepared by Victoria Police for the coroner includes statements obtained from Mr Jvirblis' treating health practitioners, friends, colleagues and staff from Monash University. I have drawn on all of this material as to the factual matters in this finding.

Health History

- 4. During high school Mr Jvirblis began to smoke tobacco and experiment with marijuana. From approximately the age of 16 he was using benzodiazepines such as valium. At 17 he began to use ice, speed and ecstasy. Around this time he reportedly began to experience panic attacks.
- 5. Mr Jvirblis saw a number of different GP's and health professionals.
- 6. From February 2009, Dr David Sweeney was one of Mr Jivirblis' GP's. Dr Sweeney noted Mr Jvirblis had a past history of seizures and amphetamine use, as well as anxiety and depression for which he was seeing a psychiatrist, Dr Zebek. Mr Jvirblis was taking an anti-depressant Zoloft and using Xanax for panic attacks. In October 2010, Mr Jvirblis was given an alternative anti-depressant, Lexapro, and was taking valium for anxiety.
- 7. In June 2011, Dr Sweeney referred Mr Jvirblis to neurologist Richard Gerraty due to a problem with foot drop, pain and weakness referable to muscles in the front of his leg. In November 2011, there was some improvement in this condition and a further review was scheduled for March 2012.¹
- 8. On 25 November 2011, Dr Thai Lim prescribed Mr Jvirblis pregablin for worsening anxiety and 5 tablets of antenex 2mg for emergency use. This was Mr Jvirblis' only consultation with Dr Lim who referred him to a psychologist.²
- 9. In February 2012, Mr Jvirblis travelled to Thailand with his girlfriend. During the trip he abused his prescription medication and alcohol. Upon return to Australia, Mr Jvirblis expressed an intention to enter into rehabilitation.
- 10. To that end, on 13 February 2012, Mr Jvirblis was referred to Delmont Private Hospital for psychiatric assessment and admission by GP, Dr Chris Sherman from Northside Clinic. Dr Sherman diagnosed him with anxiety and substance use issues, particularly in relation to codeine.³

¹ Statement of Dr Richard Gerraty, 12 July 2013, 1.

² Statement of Dr Thai Liom, 5 August 2013, 1.

³ Statement of Dr Arthur Hokin, 26 July 2013, 1.

- 11. On 15 February 2012, Mr Jvirblis was admitted to Delmont under the care of Dr Arthur Hokin. Dr Hokin stated that he presented with;
 - "...at least a 10 year history of opiates abuse, mainly codeine in form of [the] painkillers as well as opiates obtained from [the] research laboratory he used to work or sometimes Fentanyl injections he obtained from medical practitioner...he has been suffering from anxiety since early teenage which he overcome by using codeine or benzodiazepines...

He also gave a recent history of being in Thailand two weeks prior to admission w[h]ere he used for... two weeks daily up to 300mg of Tramal in combination with Valium for up to 50 mg and excessive doses of alcohol. He also claimed that for four days he had injections of Fentanyl 10mg twice a day by local GP."⁴

- 12. Dr Hokin assessed that Mr Jvirblis's;
 - "...childhood and possibly some genetic predisposition probably laid the groundwork for him developing into a somewhat anxious and possibly dependent/ addictive personality who is suffering from Multi-substance Abuse/Dependency (Opiates, Alcohol, Benzodiazepines), currently withdrawing with possible underlying Anxiety or Personality Disorder."⁵
- 13. On 16 and 18 February 2012, Mr Jvirblis saw Dr Kim Alexander, an addictive medicine specialist. She diagnosed that he was suffering from mild opiate withdrawal, alcohol and benzodiazepines abuse and was at high risk of opiate relapse. Dr Alexander suggested suboxone as a detoxification and maintenance therapy, which Mr Jvirblis declined.
- 14. On 21 February 2012, Mr Jvirblis requested a discharge from the hospital. He wanted to continue his abstinence with the help of addiction medicine specialists and services closer to his area. Dr Hokin stated he:
 - "...demonstrated relatively good insight into his problem and generally sound judgment."
- 15. On 2 April 2012, Mr Jvirblis consulted psychiatrist Dr Anthony Cidoni who he saw up until his death. Dr Cidoni diagnosed Mr Jvirblis with panic disorder and social phobia. Dr Cidoni stated that he also exhibited evidence of generalised anxiety, narcissistic personality traits and had difficulties with opiate, codeine and for brief periods, alcohol abuse. He was

⁴ Statement of Dr Arthur Hokin, 26 July 2013, 1-2.

⁵ Statement of Dr Arthur Hokin, 26 July 2013, 2.

⁶ Statement of Dr Arthur Hokin, 26 July 2013, 3.

⁷ Statement of Dr Anthony Cidoni, 7 August 2013, 1.

treated with psychotherapy weekly to fortnightly, and antidepressant mirtazapine up to 60mg daily. This was changed at Mr Jvirblis' request to pregablin up to 300mg daily, although he was reported to be taking up to 900mg at a time, from a prescription he obtained elsewhere. Mr Jvirblis was also treated with anxiolytics; alprazolam and diazepam, in varying amounts, but usually up to 6mg of alprazolam per day.

16. Dr Cidoni stated that;

"It was difficult to engage him in psychotherapy as he was quite focused on biological treatment, which did not control his symptoms well...We discussed many times his use of substances to self-medicate, and the need to reduce his substance use in order to effectively participate in therapy. We had discussed referral to a psychologist for ongoing therapy and an addiction specialist on 15 November 2011, shortly before his death."

Access to drugs at Monash University

- 17. Mr Jvirblis commenced his PhD in March 2012, on a research project regarding anti-cancer agents. According to Professor Peter Scammells, whom Mr Jvirblis worked under, he was not working on a project that employed schedule 8 poisons and did not have access to them.
- 18. Mr Luke Bennet, a long-time friend of Mr Jvirblis stated that Mr Jvirblis was using opiates at the time of his death which he was taking from the laboratory next to his, which was doing opiate research. Mr Bennet described that Mr Jvirblis reported taking small quantities that were undetectable.⁹
- 19. Mr Jvirblis' sister stated that,
 - "...he started taking things from his lab, I don't know the chemical names of the drugs but they were used to make different types of Opioid pain killers...He would take little bits of chemicals from flasks, he knew when to go in and what to take so it wouldn't be noticed." 10
- 20. Monash University has a licence to hold a limited stock of schedule 8 & 9 poisons including morphine. These poisons are held in a secure safe on campus and dispensed by Mr Daniel Malone, a registered pharmacist. On 25 July 2013, Mr Malone conducted an audit which did not indicate any unaccounted losses of listed scheduled poisons.

⁸ Statement of Dr Anthony Cidoni, 7 August 2013, 1.

⁹ Statement of Luke Bennet, 11 July 2013, 2.

¹⁰ Statement of Lina Jvirblis, 12 July 2013, 3.

- 21. During his time at Monash University, Mr Jvirblis' conducted experiments with codeine and thebaine but did not have authorised access to morphine or oxymorphone and his research did not involve him using opiates.
- 22. It is apparent that Mr Jvirblis was able to gain access to opiates through other students' experiments by gaining access to the adjoining laboratory and removing opiates from experiments.

Events Proximate to Death

- 23. On 16 November 2012, at approximately 10pm, Mr Bennet went to Mr Jvirblis' home with Michael Kendel. Ivan Troisky was also at the house and Brett Pryor arrived later.
- 24. Mr Bennet stated that Mr Jvirblis appeared to be heavily effected by opiates. Mr Bennet stated that there were empty vials lying around which he noted were large glass vials found in laboratories with rubber stoppers. He noted two kinds; one with a liquid residue and the other with powder residue in it which he presumed were from the university.¹¹
- 25. Mr Bennet offered Mr Jvirblis mephedrone¹² which he had brought with him. He stated that he thought Mr Jvirblis took a considerable amount and seemed to be more alert after he took it.¹³
- 26. On 17 November 2012, at approximately 1.30am, Mr Pryor arrived at Mr Jvirblis' house. He stated that there was drug paraphernalia on the coffee table and bathroom. In the bathroom, he stated that there was a black capped glass vial with black numbers written on the vial. Mr Pryor stated that Mr Jvirblis used the white powder more frequently than anyone else. 15
- 27. Mr Bennet stated that he put Mr Jvirblis to bed at approximately 1am and then left with Mr Kendel and Mr Pryor. Mr Troisky remained overnight.

¹¹ Statement of Luke Bennet, 11 July 2013, 3.

¹² Mephedrone, also known as 4-methylmethcathinone (4-MMC) is a synthetic stimulant drug of the amphetamine and cathinone classes.

¹³ Statement of Luke Bennet, 11 July 2013, 4.

¹⁴ Statement of Brett Pryor, 1 August 2013, 2.

¹⁵ Statement of Brett Pryor, 1 August 2013, 3.

- 28. At approximately 6am, Mr Troisky went to Mr Jvirblis' room and saw he was awake. He told Mr Jvirblis he was going to Monash University to collect his keys and Mr Jvirblis said he would accompany him. They both left the house and walked to the campus in Parkville.
- 29. At approximately 7am they entered the campus building. CCTV footage shows Mr Jvirblis entering the building and travelling to the first floor via the lifts and walking to room 140 alone.
- 30. Mr Troisky stated that after he had retrieved his keys, Mr Jvirblis said he was staying to respond to an email he had received from his girlfriend (who was in New Zealand) and they said goodbye. Emails retrieved from Mr Jvirblis's Ipad indicate that he had received an email from his girlfriend on 16 November 2012 concerning their relationship.
- 31. At approximately 9.10am university researcher Kieran Rimmer attended the campus. On his way to his office, room 146, Mr Rimmer walked past the students study area, room 140, where he saw Mr Jvirblis slumped over a desk. He initially thought he was asleep. He checked on him and observed that he was breathing and snoring, so left him. At approximately 10am he noticed his hand twitch and thought he was still asleep.
- 32. At approximately 11.45am, lecturer James Swarbrick attended the campus. He saw Mr Jvibrlis in room 140, slumped over a table appearing to be asleep. He checked on him and heard snoring and breathing noises.
- 33. Mr Swarbrick discussed this with Mr Rimmer and they left the building for a few hours. At approximately 3.45pm, Mr Swarbrick returned and noticed Mr Jvirblis in the same position, which he thought was strange. He checked on Mr Jvirblis and realised he was deceased. Mr Swarbrick contacted security who contacted police. Police and ambulance attended.
- 34. Police located in Mr Jvirblis' top right pocket an empty plastic container labelled 'Exymorphone 104 R 3 @ 3'. In Mr Jvirblis' backpack, police located a box of diazepam 5mg, containing two empty blister packs dated 13 November 2012, prescribed by Dr Sweeney, one tube of Voltarin gel, one half used blister pack of Nurofen plus 200mg, one half used blister pack of Lyrica 300mg. Police also located one clear glass round bottom flask labelled Morphine, one small clear glass vial with white powder residue, medication container labelled alprazolam prescribed by Dr Cidoni on 8 November 2012 and one clear glass vial labelled oxymorphone crude. ¹⁶

¹⁶ Statement of Detective Senior Constbale Glyn Crossland, 30 July 2013, 3.

35. The coroner's investigator identified that the handwriting on the labels of the vessels morphine and oxymporphone was of research fellow, Gaik Orbell and the vessels were similar in appearance to those used in his lab. Mr Orbell confirmed his handwriting was on the vials.

Post Mortem Examination

- 36. A post mortem autopsy was completed by Forensic Pathologist Dr Heinrich Bouwer at the Victorian Institute of Forensic Medicine on 21 November 2012. Dr Bouwer formulated the cause of death. I accept his opinion. Dr Bouwer stated that Mr Jvirblis;
 - "...died of the toxic effects oxymorphone, benzodiazepines, codeine and morphine. These drugs alone or in combination may cause severe central nervous system and respiratory depression...

There was diffuse involvement of the lungs and chest lymph nodes by sarcoidosis. Sarcoidosis is a name given to a condition in which, 'sarcoid granulomas' appear in the body's tissue and is a form of inflammation. The cause of sarcoidosis is currently unknown. Sarcoid granulomas are seen on tissue biopsy under the microscope and consist of a group of immune cells which are normally a part of the body's defences. Sarcoidosis, in my view, is not the cause of death but may have been a contributing factor."

Monash University Review

- 37. Ms Glenda Beecher, Deputy General Counsel, indicated Monash University conducted a review following Mr Jvirblis's death.
- 38. Monash University is the holder of a permit under regulation 5 of the *Drugs, Poisons and Controlled Substances Regulations*. The permit enables Monash University to purchase or otherwise obtain and store Schedule 8 poisons at its Parkville campus for industrial, educational and research purposes.
- 39. In accordance with permit conditions, Monash University has and maintains a Poisons Control Plan. The Poisons Control Plan has been approved by the Department of Health as required by the permit. The permit and the Poisons Control Plan contain information regarding the handling of Schedule 8 poisons.
- 40. Following Mr Jvirblis' death, Monash University conducted a schedule 8 poisons reconciliation and reviewed the standard operating procedures for research involving schedule 8 poisons.

- 41. It concluded that the handling of schedule 8 poisons in the faculty prior to November 2012 complied with both the *Drugs, Poisons and Controlled Substances Act 1981* and guidance documents produced under the *Drugs and Poisons and Controlled Substances Regulations* by the Department of Health & Human Services, 'Management of schedule 8 poisons in pharmacy'.
- 42. Ms Beecher noted that the *Drugs, Poisons and Controlled Substances Act 1981* and guidance documents provided clear and specific rules for the sale, recording and administration of schedule 8 poisons in a community pharmacy setting, however there was no guidance for schedule 8 poison management in an experimental research laboratory. Specifically, there was no guidance for how schedule 8 poisons should be managed in a laboratory while being synthesised and used in multiple sequential experiments.
- 43. In the absence of legislative or regulatory guidance, the Monash University review committee revised the Standard Operating Procedures for research involving schedule 8 poisons and recommended;
 - The procedures document the existing arrangements for receipting schedule 8 poisons upon delivery and the allocation of schedule 8 poisons to researchers.
 - Existing verbal instructions on the use of schedule 8 poisons be replaced by written instructions in the procedures.
 - The procedures document what controls are in place while a reaction is in progress.
 - Locked storage located in the laboratory for schedule 8 poisons whilst in use be improved.
 - A threshold mass be set, above which schedule 8 poisons are to be subject to special rules.
 - The procedures document existing disposal arrangements for residue and materials that are no longer required.
 - Audits of laboratory books for experiments using schedule 8 poisons be undertaken by the research supervisor.
 - An annual audit of controlled substance record books be introduced, in addition to audits already in place.

- Refinement of the weighing procedures for the annual physical stocktake of schedule 8 poisons.
- 44. The Faculty Dean referred the recommendations to the Occupational Health & Safety (OHS) Committee to action. The OHS Committee adopted additional procedures consistent with the recommendations. In August 2013, the revised Standard Operating Procedures were implemented.
- 45. A sub-committee of the OHS Committee was established to specifically deal with research involving schedule 8 poisons. This sub-committee oversees the authorisation of all projects involving schedule 8 poisons, as well as the training and induction of researchers working on approved projects.
- 46. In May 2015, a further review was conducted, which determined that the revised procedures and measures were sufficient to ensure that the risk of a similar incident involving the unauthorised diversion of poisons is minimised.
- 47. From 2009 to 2014, safety protocols, procedures and facilities at the Parkville campus have been audited eight times by a combination of occupational health and safety consultants employed by the university, external contracted auditors, SAI Global, the Federal office of the Gene Technology Regulator, and Work Safe Victoria.
- 48. On 25 June 2014, the most recent audit by Work Safe Victoria was conducted which concluded that the workplace had identified hazards and risks and had processes and systems in place which required no further action.

Processes in place to prevent unauthorised access to schedule 8 poisons

- 49. Ms Beecher stated Monash University has the following processes in place to prevent unauthorised access to experiments involving schedule 8 poisons from occurring in future:
 - Any experiment requiring the use of more than 20mg of a schedule 8 poison (roughly equivalent to a therapeutic dose) is restricted to a single high security laboratory, with 24 hour locked security access and CCTV coverage which is monitored by Monash Security. Only a small number of staff and students undertaking experimental research in the laboratory have access rights. Within the high security laboratory is a concealed safe in which schedule 8 poisons are locked while undergoing preparation for experimentation. Access to the safe is managed by the Head of Department.

- All research involving schedule 8 poisons must be approved by the relevant OHS subcommittee and all researchers must attend mandatory induction training.
- Researchers must keep records of the schedule 8 poisons allocated to them and
 document all experiments (including amounts) of schedule 8 poisons used in
 experimentation. These laboratory books are audited every two months by the
 research supervisor.
- There is twice yearly unannounced inspection of all schedule 8 poisons in the high security laboratory.
- Balance checks of schedule 8 poisons are conducted annually and schedule 8 poisons stored and not used for 5 years are reviewed for disposal.
- 50. According to Ms Beecher, since these procedures were introduced in 2013, no anomalies have been detected through the auditing process. These procedures were formally reviewed in August 2014 and May 2015 and will continue to be reviewed on an annual basis.

Conclusion

- Although statements from Dr Hokin, Mr Bennett and Mr Jvirblis' sister indicate they were aware Mr Jvirblis was accessing opioids from his research laboratory, the diversion of the poisons did not come to the attention of Monash University prior to his death. I note the permit pursuant to the *Drugs, Poisons and Controlled Substances Regulations 2006* requires the permit holder to maintain true and accurate records, and report any loss, theft or misappropriation to police and the Department of Health and Human Services.
- 52. Although the Monash University review committee found the Act and Regulations had been complied with, clearly any audits conducted were insufficiently accurate to identify the redirection of opioids from the research laboratory.
- 53. In the absence of guidance documents regarding the management of schedule 8 poisons in the research and laboratory setting, I am hopeful the measures implemented by Monash University are sufficiently robust to prevent the possibility of the future illegal diversion of schedule 8 poisons.

Finding

I find that Jonas Jvirblis died from combined drug toxicity in the setting of sarcoidosis.

Recommendation

Pursuant to section 72(2) of the **Coroners Act 2008**, I make the following recommendations connected with the death:

- 1. The Victorian Department of Health and Human Services review the regulation of schedule 8 and 9 poisons used and produced in a research setting and consider the development of specific guidance documents, similar in nature to the guidance document, 'Management of schedule 8 poisons in pharmacy', for use in the research context. This should include guidance regarding weighing powders and managing synthesised poisons.
- 2. The Victorian Department of Health and Human Services consider providing education to research facilities with permits pursuant to regulation 5 to use schedule 8 poisons, about their responsibilities to comply with the provisions of the *Drugs, Poisons and Controlled Substances Act 1981* and Regulations, in relation to schedule 8 and 9 poisons used and created in experiments and otherwise.

I note the Department of Health and Human Services was provided with a copy of these recommendations in their draft form for comment. The response dated 19 February 2016 noted consideration would be given to the development of guidance material for the use of schedule 8 and 9 poisons in research settings. Although noting there would be challenges given the diversity of research settings, the Department of Health & Human Services was supportive of taking the opportunity to improve the knowledge of licence and permit holders and their use and management of schedule 8 and 9 poisons.

I direct that a copy of this finding be provided to the following for their information only:

Mrs Vida Voight

Coroner's Investigator

Interested Parties

I direct that a copy of this finding be provided to the following for their action:

Ms Kym Peake, Secretary, Department of Health & Human Services Mr Graeme Gillespie, Chief Officer, Drugs and Poisons Regulation

Signature:

CAITLIN ENGLISH

CORONER

Date: 26 February 2016