

Before we get started...



Questions/comments "Q&A" "Chat"



Technical Support:

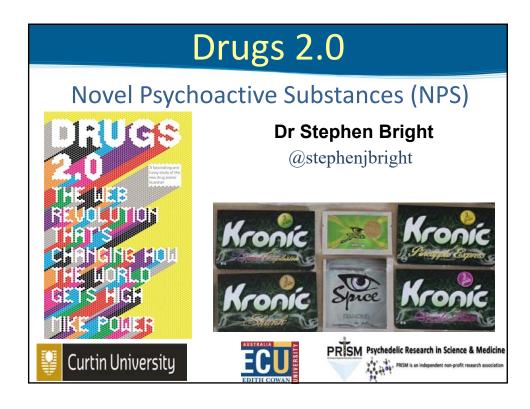
- Call 1800 786 027, extension 2, quote webinar ID 120-246-611 when prompted
- Visit https://support.zoom.us/hc/en-us/categories/201146643-Meetings-Webinars and click on the help icon bottom right corner to chat online with support staff



Access recording and handouts at conclusion of event visit https://sydney.edu.au/research/centres/matilda-centre.html & click on 'Workforce Training'



Remember: Complete CPD assessment at conclusion of webinar



Objectives

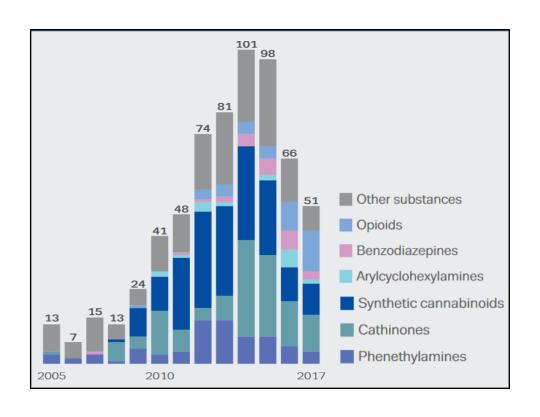
- 1. What are Novel Psychoactive Substances (NPS)?
- 2. How prevalent is NPS use in Australia?
 - Synthetic Cannabis
 - Unintentional Use
- 3. Strategies for working with people may be using NPS (possibly unwittingly)

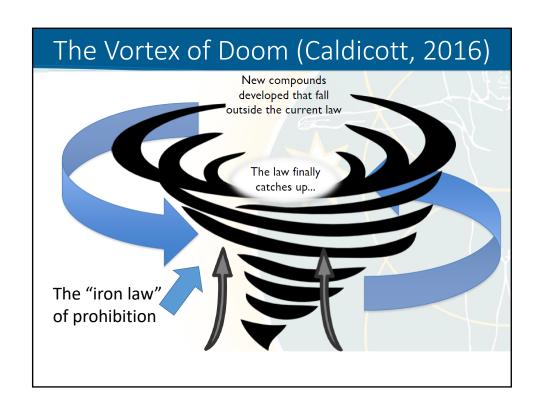


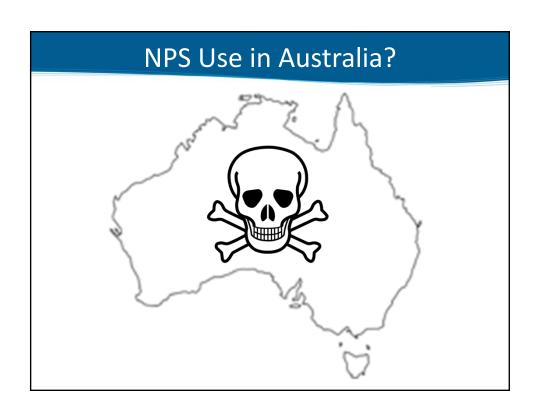


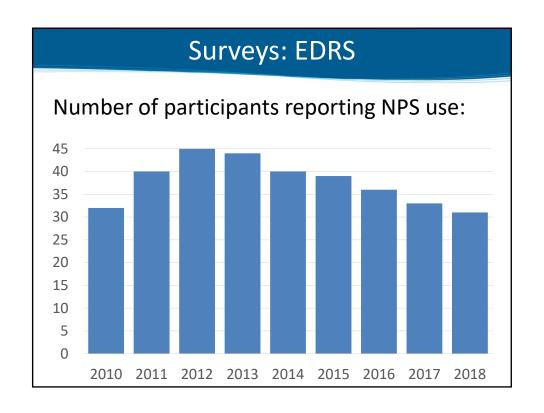


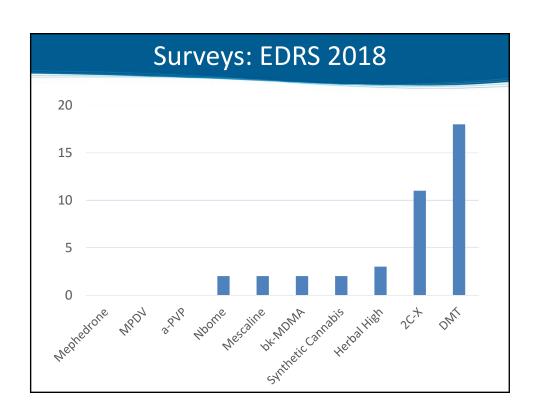
novel psychoactive pills substances herbal highs synthetics synthetics emerging substances substances research chemicals

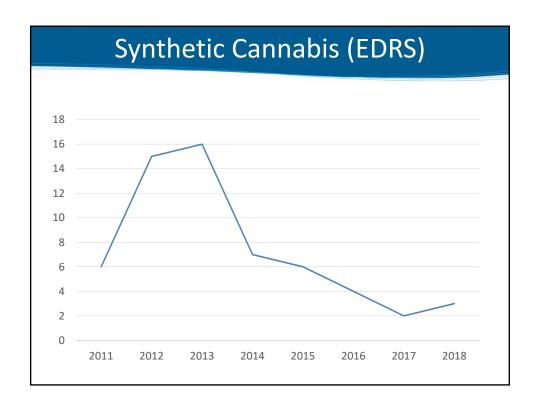














Mix of 25C-NBOMe, 4-FA and MDMA sold as MDMA in Melbourne, Australia

by Tronica

Published on 03-02-2017 07:50

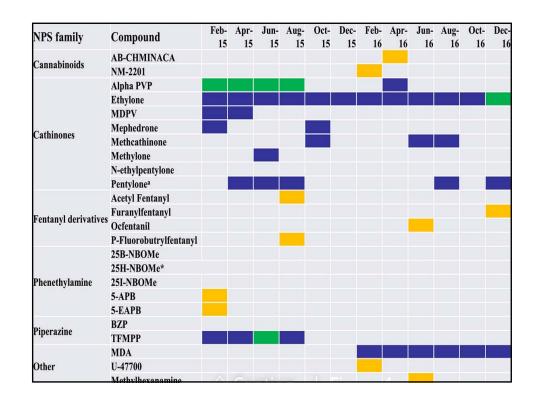
24 Comments **9**

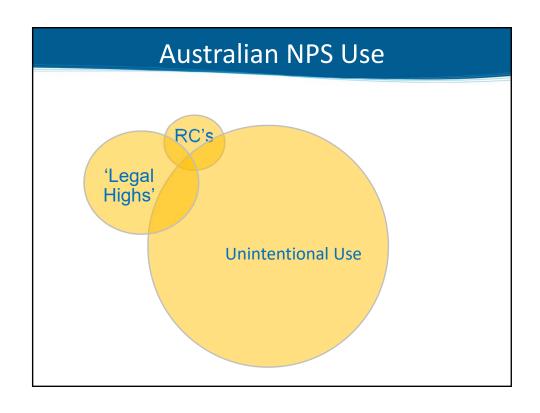
On the weekend 15-16 January 2017, there was a spate of poisonings, hospitalisations and deaths that have been associated a batch of capsules that were reportedly sold as MDMA or Ecstasy. Punters at Revolver nightclub and other clubs on Melbourne's Chapel Street were affected.

The contents of these caps appeared damp, more like a brown sugar consistency than crystals or powder.



Wastewater Analysis + Forensic Toxicology Jun Aug Oct Dec Feb Apr Jun Aug Oct Dec Feb Apr Jun 12 12 12 13 13 13 13 14 14 14 14 NPS family Compound AB-CHMINACA Cannabinoids NM-2201 Alpha-PVP Ethylone MDPV Mephedrone Cathinones Methcathinone Methylone N-ethylpentylone Pentylone Acetyl Fentanyl Furanylfentanyl Fentanyl derivatives Ocfentanil P-Fluorobutrylfentanyl 25B-NBOMe 25H-NBOMe Phenethylamine 25I-NBOMe 5-APB 5-EAPB **BZP** Piperazine Bade, R., Stockham, P., Painter, B., Celma, A., Bijlsma, L., Hernandez, F., ... & Gerber, C. (2018). Investigating the appearance of new psychoactive substances in South Australia using wastewater and forensic data. Drug testing and analysis. [Early Online]





Synthetic Cannabinoid Agonists

2005: Spice emerged in UK

2009: Chemical in Spice identified

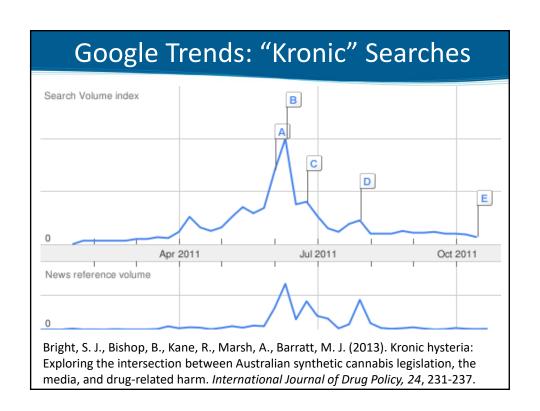
Kronic

2011: Kronic emerged as a new drug in Australia Produced in New Zealand





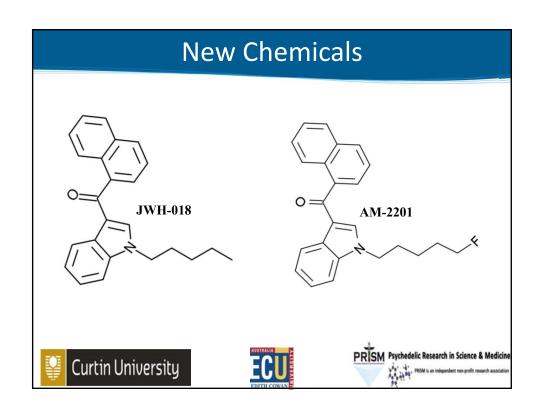
First Legislative Action WA government banned 7 synthetic cannabinoid agonists in June 2011: - JWH-018 - JWH-073 - JWH-122 - JWH-200 - JWH-250 - CP 47,497 - The C8 Homologue of CP 47,49











Further Legislative Actions

Federal:

- 2011: 7 individual chemicals
- 2012: Broad groups + "Synthetic
 - Cannabinomimetics"
- 2013: Consumer law (banned brands)

State:

- 2013: QLQ (everything)
- 2013: NSW (Anything with a Psychoactive Effect)
- 2013: SA (Similar Pharmacological effect)





Synthetic Cannabis (circa Nov 2016) JWH-018 5F-CUMYL-P7AICA Banister, S., Adams, A., Kevin, R., Macdonald, C., Glass, M., Boyd, R., Connor, M., McGregor, I., Havel, C., Bright, S.., Ventura, M., Gil, C., Barratt, M., & Gerona, R. (2019). Synthesis and pharmacology of synthetic cannabinoid 5F-CUMYL-P7AICA, a scaffold hopping analogue of 5F-CUMYL-PICA and 5F-CUMYL-PINACA. Drug Testing and Analysis 11, 279-291

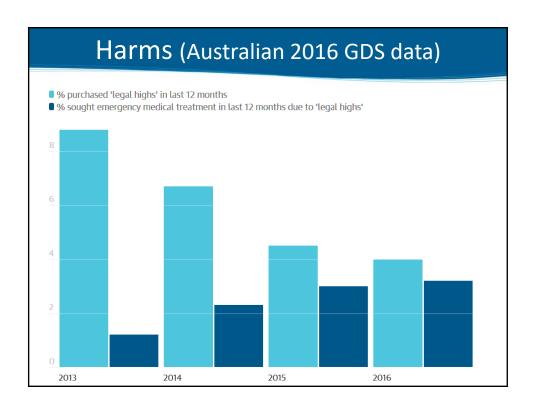
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- 2013: SA (Similar Pharmacological effect)
- 2016: WA (Anything with a Psychoactive Effect)
- 2017: VIC (Anything with a Psychoactive Effect)



Synthetic Cannabis - Epidemiology

93% of Australian's would prefer to smoke natural cannabis to synthetic cannabis

Of those who preferred it to natural Cannabis, why did they prefer it?

- More intense effect & shorter duration (58%)
- Easier to get than cannabis (19%)
- Avoid Urine Screens (15%)

(Winstock & Barratt, 2015)

What about those who were smoking that didn't prefer it to natural cannabis?







Synthetic Cannabis - Epidemiology

Drug testing (specific populations)

Military personnel (for review, see Loeffler et al., 2012)

Mental health patients (Every-Palmer, 2010)

-Perceived to be safer than cannabis

Parolees (Hopkins & Gilchrist, 2013; Perrone et al., 2012)

Family Court

Unable to access natural Cannabis







Synthetic Cannabis Withdrawal

More complex that natural cannabis



Synthetic Cannabis Withdrawal

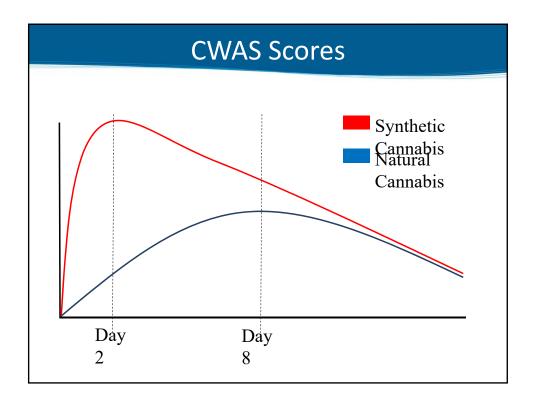
- More complex that natural cannabis
- More acute and severe that natural cannabis
 - CWAS scores peak at 2 days (cf 7 10 days)

(Macfarlane & Chrisite, 2015)









Synthetic Cannabis Withdrawal

- More complex that natural cannabis
- More acute and severe that natural cannabis
 - CWAS scores peak at 2 days (cf 7 10 days)
 - Cases of psychosis and seizures

(e.g., Nacca et al., 2013)

- Consider the possibility of in-patient withdrawal
 - Inpatient Rx was deemed necessary for 53% of people seeking community treatment in NZ

(Macfarlane & Chrisite, 2015)

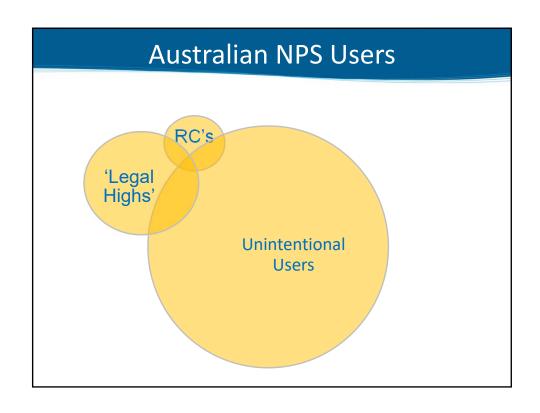
Intoxica	tion/Withdrawal Symptoms
Cognitive	Confusion, disorganised thought, memory problems, difficulty thinking clearly
Behavioural	Agitation, restlessness, <u>aggression</u>
Mood Affect	Anxiety, <u>irritability</u> , inappropriate laughter
Sensory Perceptual	Paranoia, perception distortions, delusions, hallucinations, <u>psychosis</u>
Physical	Tachycardia, hypertension, <u>nausea</u> , <u>vomiting</u> , tremors, numbness, tingling, light-headedness, <u>seizures</u>

Treament Guidelines

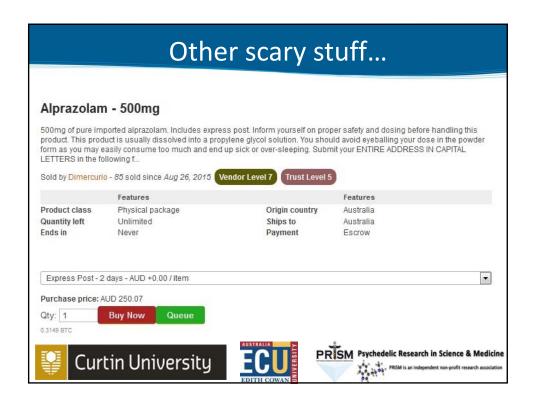
Treatment recommendations similar to cannabis:

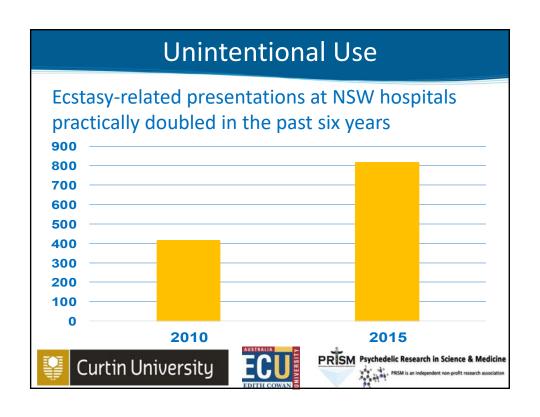
- 1. in acute setting, treat Sx (e.g., benzodiazepines for anxiety)
- 2. most Sx will resolve spontaneously
- 3. some with previously diagnosed psychotic disorders may not resolve as quickly
- 4. no specific treatments developed for chronic use/withdrawal, treat symptomatically

(Castellanos & Thornton, 2012)



Possible Unintenti	onal Consumption
Ketamine Methoxetamine 3-Meo-PCP	MDMA BK-MDMA Mephedrone 2C-B, 2C-I
Heroin Acetyl-fentanyl (10x) MT-41 (hearing loss) 4FIB-fentanyl (4FIBF) U47700	MDPV PMA LSD 2C-E
W-18 (?10,000) **Carfentanil**	DOM, DOB, DOI NBOMe series





Clinical signs and Sx

Acute settings

Presentation: Ataxia, Tachycardia, Arrhythmia, Hypertension, Hyperthermia, Rhabdomyolysis, Kidney Failure, Nausea, Anxiety, Agitation, Confusion, and Paranoia.

Assessment

- Lab results?
- Clinical presentation & careful questioning

Treatment: Symptomatic

 Benzo (<u>not beta-blockers</u>), Antipsychotics, Cooling, IV Saline

Assessment

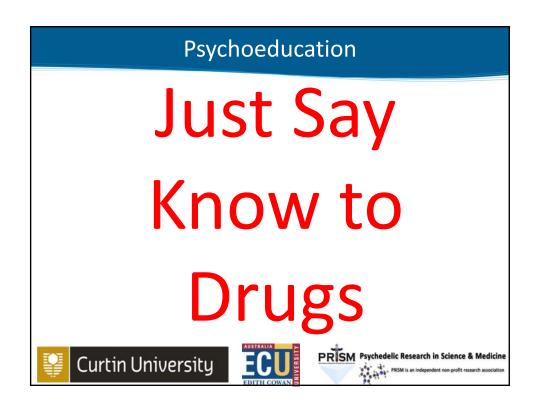
The primary drug of choice that the person is presenting for may not be the most likely to cause them harm

- conversation around other drugs the person is using

The person's primary drug of choice may contain new and novel drugs that could cause harm

- conversation about new and emerging "adulterants" they may be unintentionally ingesting

Just Say No to Drugs OBUGS



Psychoeducation - PEPE

Permission

- Implied when person asks for advice or you receive consent to provide information
- 'What do you know about ecstasy? Would you like to know some more?'

Elicit

- 'What would you most like to know about?'
- 'How much do you know about...?'

Provide

– 'Did you know that there are new dangerous chemicals being sold as ecstasy in Australia?'

Elicit

– 'What do you think of this information?'



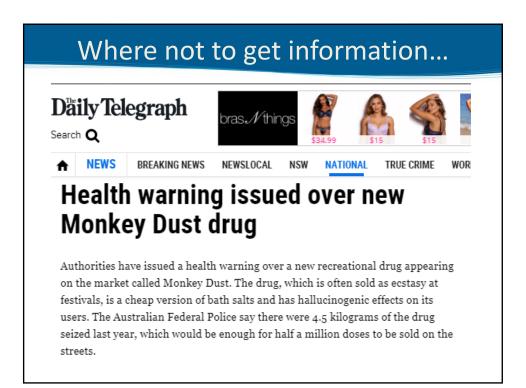
Psychoactive Chemicals

Psychoactive Chemicals are chemicals which have mind- or emotion-altering properties. These chemicals range from the common to the extremely uncommon and include chemicals with a long history of use as well as those with little to no track record.



NAME	OTHER NAMES	EFFECTS
AB SINTHE	Green Fairy	
ACETYLFENTANYL		Pain Killer
ADRENOCHROME	Pink adrenaline	
AET		Psychedelic Tryptamine
ALCOHOL	Beer, Wine, Liquor	Depressant
alpha-PVP	Flakka, Gravel	Euphoric Stimulant
<u>AMITRIPTYLINE</u>	Elavil	Anti-depressant; Sedative
<u>AMPHETAMINE</u>	Speed	Stimulant
AMT	IT-290	Psychedelic Tryptamine
AYA HUA SCA	Yage	Psychedelic Brew
BARBITURATES		Depressant
BK-MBDB		Euphoric Empathogen
BROMO-DRAGONFLY	3C-Bromo-Dragonfly	Psychedelic Phenethylamine
BUFOTENIN	Toad Venom, 5-Hydroxy-DMT	Psychedelic Tryptamine
<u>BZ</u>		Anti-cholinergic Psychedelic
<u>BZP</u>	Piperazine, A 2	Stimulant
CAFFEINE	Coffee, Tea	Stimulant

DET		Psychedelic Tryptamine
DIPT		Psychedelic Tryptamine
<u>DMT</u>	Dimitri	Psychedelic Tryptamine
<u>DOB</u>	Bob, Dr. Bob	Psychedelic Phenethylamine
DOC		Psychedelic Phenethylamine
<u>DOI</u>		Psychedelic Phenethylamine
<u>DOM</u>	STP	Psychedelic Phenethylamine
<u>DPT</u>		Psychedelic Tryptamine
<u>DXM</u>	Robo, Tussin	Dissociative, Cough Suppressant
<u>EPHEDRINE</u>	Mini Thins	Stimulant
<u>ETHER</u>		Anaesthetic Gas
<u>ETHYLCATHINONE</u>	ethyl cat	Stimulant
<u>ETHYLENE</u>		Anaesthetic Gas
<u>ETHYLPHENIDATE</u>		Stimulant
<u>GHB</u>	G	Depressant
<u>GHV</u>		Depressant
<u>HARMALA</u>	Haoma, Harmine, Harmaline	MAOI
HEROIN	Horse	Opiate
HYPOCRETIN	Orexins	Hormone
<u>IAP</u>		Psyched elic Amphetamine
<u>IBOGAINE</u>		Psychedelic
<u>INHALANTS</u>		
<u>KETAMINE</u>	K, Special K	Dissociative, Anaesthetic
<u>LSA</u>	LAA, LA -111, Lysergamide, Ergine	Psyched elic
<u>LSD</u>	Acid, L	Psychedelic
<u>LSZ</u>		Psychedelic
MA OIs		
MB DB	Eden, Methyl-J	Psyched elic Amphetamine
mCPP	CPP, 3-CPP	Stimulant





Harm Reduction for NPS

When trying a new tab, pill, or powder:

Never be the first person in your group to use Always start off small:

- Your first dose should only be a 1/4 dose
- Wait for at least 90-120 minutes before re-dosing

Only use one drug at a time

Never use alone – always use with someone who can provide support if needed

Use in a safe and familiar place

Don't drive, swim, play with knifes or engage in other risky activities while under the influence of a drug









Reagent Testing

What is it?

- Presumptive test
- Can not provide quantitative information
- Not 100% accurate but better than nothing
- Negative results are more useful than positive results







NBOMe



Pill Testing/Drug Checking

Ecstasy pill tests 'will save lives', says Perth researcher

Josh Zimmerman | PerthNow November 5, 2017 12:00AM

SECRET, unauthorised pill testing by a Perth researcher at a music festival last summer found 99 per cent of users chose to bin their drugs when told they contained unknown substances.

In an indication of the life-saving potential of pill testing, subsequent laboratory analysis of some of the discarded drugs detected the presence of the deadly NBOMe adulterant, a powerful psychedelic hallucinogen linked to three deaths and 20 hospitalisations at nightclubs on Melbourne's Chapel Street.



Resources - Twitter

- @stephenjbright
- @Erowid
- @ACTINOSproject
- @GlobalDrugSurvy
- @EMCDDA
- @monicabarratt
- @AODMediaWatch
- @....



Thank You



Bright, S. (2013). New and Emerging Drugs: What do clinicians, allied health & youth workers need to know? Melbourne, Australia: Australian Drug Foundation

Dr Stephen Bright 0419 143 773 s.bright@ecu.edu.au

Further info

For video recording and handouts of this webinar, visit
https://sydney.edu.au/research/centres/matilda-centre.html and click on 'Workforce Training'

To complete CPD assessment (available until 3 October 2019): https://www.surveymonkey.com/r/BLG6XMP



Next Webinar

Tuesday 28 May 2019, 7.30pm *Motivational interviewing*

Register: https://zoom.us/webinar/register/WN_OldUyrowSqq-KgA9mwU4-Q