



# What's the Current State of the Synthetic Cannabinoid Market?

NPS Discovery Webinar Series – Thursday October 12, 2023

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  - The opinions, findings, conclusions and/or recommendations expressed in this publication are those of the author(s) and do not necessarily represent the official position or policies of the U.S. Department of Justice.



**NIJ** | *National Institute  
of Justice*

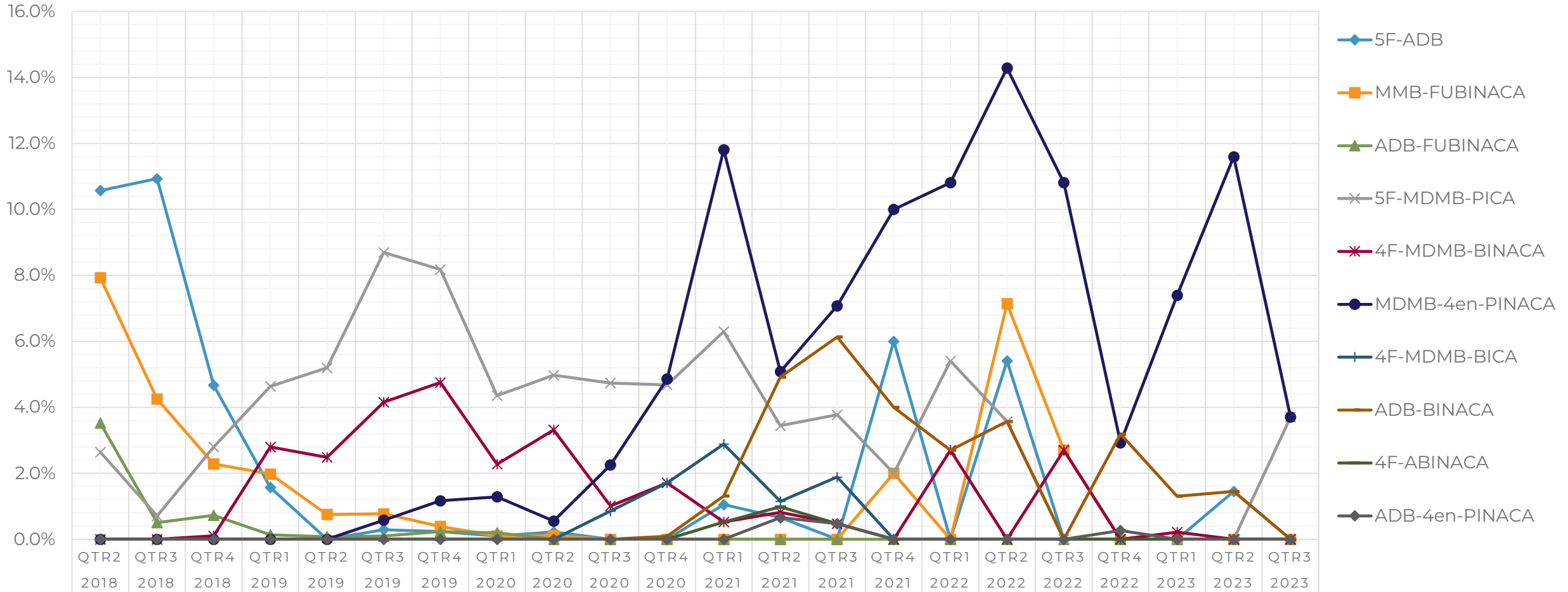
STRENGTHEN SCIENCE. ADVANCE JUSTICE.



# STATEMENT OF THE PROBLEM



# POSITIVITY PLOT – SYNTHETIC CANNABINOIDS



# CLASS-WIDE BAN ON SYNTHETIC CANNABINOIDS

UNODC Laboratory and Scientific Service Portals [ Log on or register ]

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### May 2021- China: Announcement to place synthetic cannabinoids under generic control

**BEIJING, China – May 2021:** On 11 May 2021, the Office of China National Narcotics Control Commission (NNCA) announced to place synthetic cannabinoids under national control using a generic definition as well as additional 18 substances using an individual listing approach. The control measure will be effective as of 1st of July 2021. Details on the definition and substances listed have been included in the legal database of the UNODC Early Warning Advisory on NPS (EWA) under China (accessible here: [China Generic Legislation](#)).

**Photo: Announcement of the Office of China National Narcotics Control Commission**

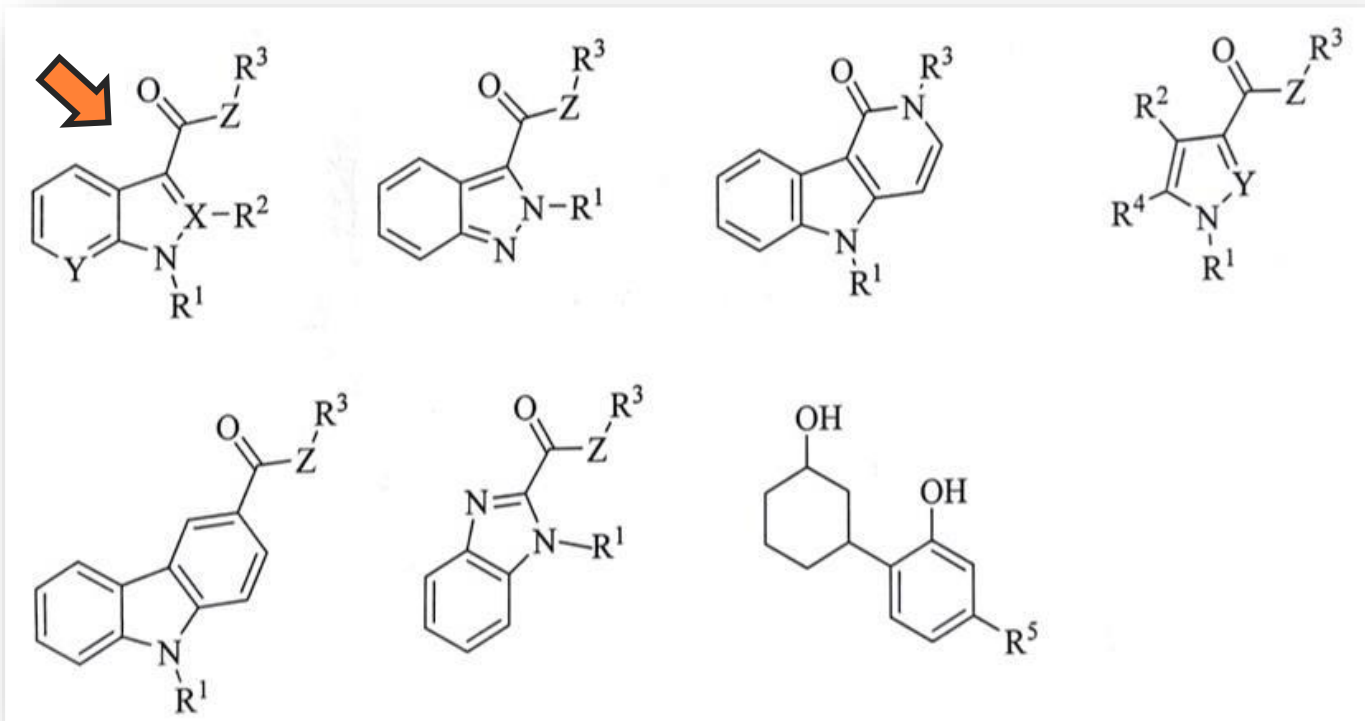
Source: [Office of China National Narcotics Control Commission](#)

AP U.S. News World News Politics Sports Entertainment Business Technology Health Science Oddities

## China issues total ban on synthetic cannabinoids

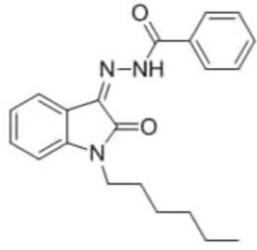
May 11, 2021

# CLASS-WIDE BAN ON SYNTHETIC CANNABINOIDS



- R1 represents substituted or unsubstituted C3-C8 **alkyl** group; substituted or unsubstituted heterocyclic group containing 1-3 heteroatoms; substituted or unsubstituted methyl or ethyl group substituted by heterocyclic group containing 1-3 heteroatoms.
- R2 represents hydrogen or methyl or no atom.
- R3 represents substituted or unsubstituted C6-C10 aryl group; substituted or unsubstituted C3-C10 **alkyl** group; substituted or unsubstituted heterocyclic group containing 1-3 heteroatoms; substituted or unsubstituted methyl or ethyl group substituted by heterocyclic group containing 1-3 heteroatoms.
- R4 represents hydrogen; substituted or unsubstituted phenyl group; substituted or unsubstituted benzyl group.
- R5 represents substituted or unsubstituted C3-C10 hydroxy group.
- X represents N or C.
- Y represents N or CH.
- Z represents O or NH or no atom.

# NEAR IMMEDIATE IMPACT ON SALES



MDA-19

MDA-19 is a drug that acts as a potent and selective agonist for the cannabinoid receptor 1 (CB1R).

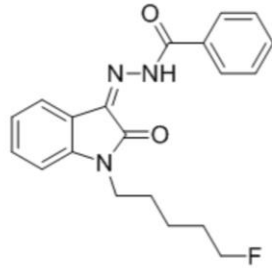
\$1.70



4C-ADB

4C-ADB is the best analog of 5F-ADB...

\$28.00



5F-MDA-19

5F-MDA-19 is a drug that acts as a potent and selective agonist for the cannabinoid receptor 1 (CB1R).

\$1.70

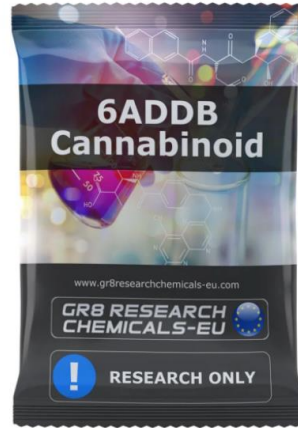


7-ADD

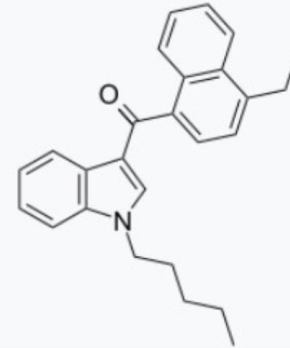
On 19.10.2021 By ADMIN

Cannabinoids New Chemicals

7-ADD is a new synthetic cannabinoid, synthesized as one of...



NEW



JWH-210



ADB-Butinaca, ADBB

On 05.06.2021 By ADMIN

Cannabinoids New Chemicals

ADB-Butinaca or ADBB synthetic is a designer cannabinoid created on...



5F-MDA-19

On 05.06.2021 By ADMIN

Cannabinoids New Chemicals

5F-MDA-19 is a cannabinoid drug, a structural analog of MDA-19



AZ-037 (5F-AB-FUPPYCA)

On 20.05.2021 By ADMIN

Cannabinoids New Chemicals

AZ-037 or 5F-AB-FUBINACA is a new designer cannabinoid based on...



5F-MDA-19 (new legal noid!)

5F-MDA-19 is a drug that acts as a potent and selective agonist for the cannabinoid receptor 1 (CB1R).

\$30.00

# DIY SYNTHETIC CANNABINOIDS

Home \ Cannabinoids \ ADB-BUTINACA PRECURSOR (SEMI-FINISHED)



## ADB-BUTINACA PRECURSOR (SEMI-FINISHED)

\$2,400.00 – \$15,000.00

Since the finished product is already illegal in China, the laboratories there have found a solution and can provide us with a precursor to the good old adb butinaca.

Quantity

Choose an option

1

Add to cart

SKU: N/A

Category: Cannabinoids

### You need:

1kg ADB-BUTINACA PRECURSOR (SEMI-FINISHED) – 3500\$

3L DMF (CAS 68-12-2)

850g anhydrous potassium carbonate (CAS: 584-08-7)

680g of bromobutane (CAS: 109-65-9)

### Instructions:

1. They were successively added into the reaction bottle;
2. The temperature was raised to 70-80°C for 5h; after the reaction, it was cooled to room temperature.
3. Prepare a bucket in advance and add 15L water;
4. Then pour the reaction solution into the bucket, cool to room temperature, filter the solid, wash the solid to neutral and dry.



# DIY SYNTHETIC CANNABINOIDS

## IMPORTANT NOTES:

Be very careful of imposters!! Our Email is only [info@thegratefulmail.com](mailto:info@thegratefulmail.com) If are you planning big order. Highly recommend to use PGP KEY always to be sure you are actually talking with us!! We are getting many questions about "which is your best cannabinoid?" It's hard to say. Some customers said "5BRO-ABB" and "5C-AKB-48" are very strong and great product. But some others do not like them. Please remember, we are not any kind of users. If you do not sure, we highly recommend you to make small order first. You also can order our semi-finished 5f-adb or semi-finished 5cl-adb and finish the product by yourself. It will be strong as the cannabinoids sold in China before the ban!

Now you can order 100 grams of our ADBB semi-finished and not only 1kg!

Now you can order 250 grams of our JWH-018 semi-finished and not only 1kg!



## NEW UPDATE (24/09/2023)

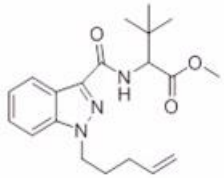
4-FPO - back in stock!

5F-PiHP - new product!

2-Me-PVP - New product. Most similar to the original a-PVP!

Magical Mountain - TOP new OPIOID.

# GRAY MARKET SITES TODAY



## 5-CL-ADB-A [OUT OF STOCK]

5-CL-ADB-A is an indazole-based synthetic noids .5-cl-adb-a acts as a designer drug which has been s..

\$50.00



ADD TO CART



## 5BRO-ABB [BEST OF 2023]

Very good quality cannabinoid 2023! Should be strong (reviews by customers)What is 5BRO-ABB? 5BRO-AB..

\$40.00

ADD TO CART



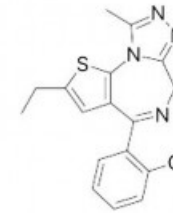
## 5C-18 [OUT OF STOCK]

5C-18 is a new research chemical for scientific researching! it should be very similar to 5-CL!..

\$60.00



ADD TO CART

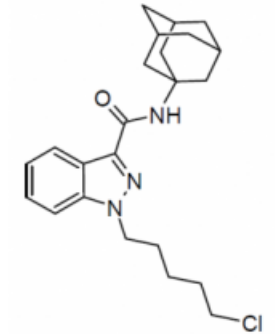


## 5C-ADB [OUT OF STOCK]

5C-ADB an indazole-based synthetic cann that is derived from a series of compounds originally develo..

\$28.00

ADD TO CART



## 5C-AKB-48 [BEST OF 2022]

Very good quality noid 2022!What is 5c-akb48? 5c-akb48 is a synthetic cannabinoid that is structually..

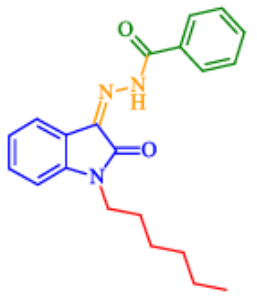
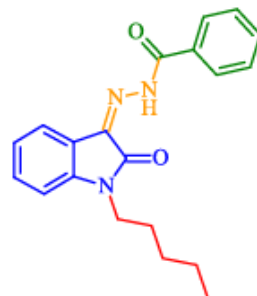
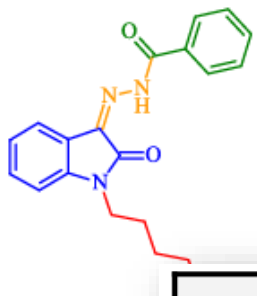
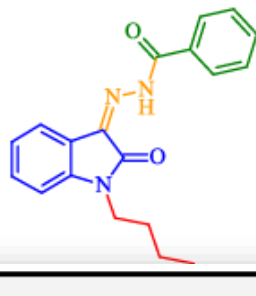
\$40.00



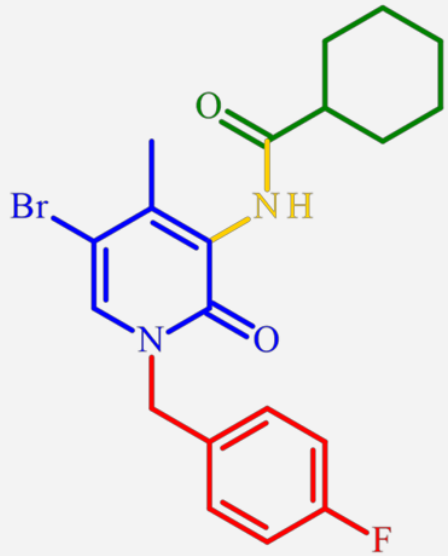
ADD TO CART



# IMPACT ON FORENSIC LABS

BZO-HEXOXIZID	BZO-POXIZID	5F-BZO-POXIZID	BZO-4en-POXIZID
			
(Z)-N'-(1-( <b>HEX</b> yl-2- <b>OXO</b> indolin-3-ylidene) <b>BenZO</b> hydra <b>ZIDE</b>	(Z)-N'-(1-( <b>Pent</b> yl-2- <b>OXO</b> indolin-3-ylidene) <b>BenZO</b> hydra <b>ZIDE</b>	(Z)-N'-(1-( <b>5-F</b> luoropentyl-2- <b>OXO</b> indolin-3-ylidene) <b>BenZO</b> hydra <b>ZIDE</b>	(Z)-N'-(1-( <b>4-en</b> -pentyl-2- <b>OXO</b> indolin-3-ylidene) <b>BenZO</b> hydra <b>ZIDE</b>
Name: <b>BZO-HEXOXIZID</b>	Name: <b>BZO-POXIZID</b>	Name: <b>5F-BZO-POXIZID</b>	Name: <b>BZO-4en-POXIZID</b>
Synonyms: <b>MDA-19</b> , <b>MDA19</b> , <b>MDA 19</b>	Synonyms: <b>5C-MDA-19</b> , <b>MDA-19 pentyl analogue</b>	Synonyms: <b>5F-MDA-19</b> , <b>MDA-19 5-fluoropentyl analogue</b>	Synonyms: <b>4-en-MDA-19</b> , <b>MDA-19 4-en pentyl analogue</b>



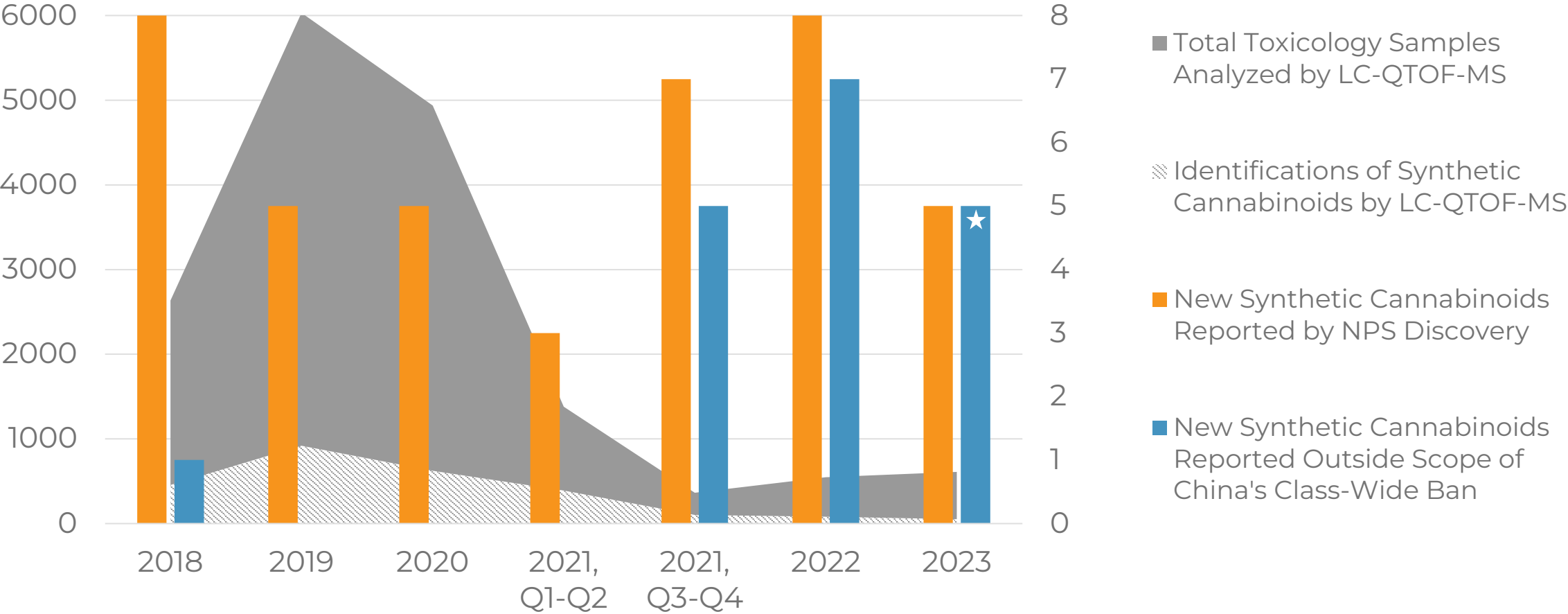
	<p>Formal Name:</p> <p><b>N-(5-Bromo-1-(4-FluoroBenzyl)-4-Methyl-2-Oxo-1,3-dihydroPYRIDIN-3-yl)CycloHexanecarboxAMIDE</b></p>
	<p>Preferred Name:</p> <p><b>CHO-4'Me-5'Br-FUBOXPYRA</b></p>



# DATA & IMPACTS

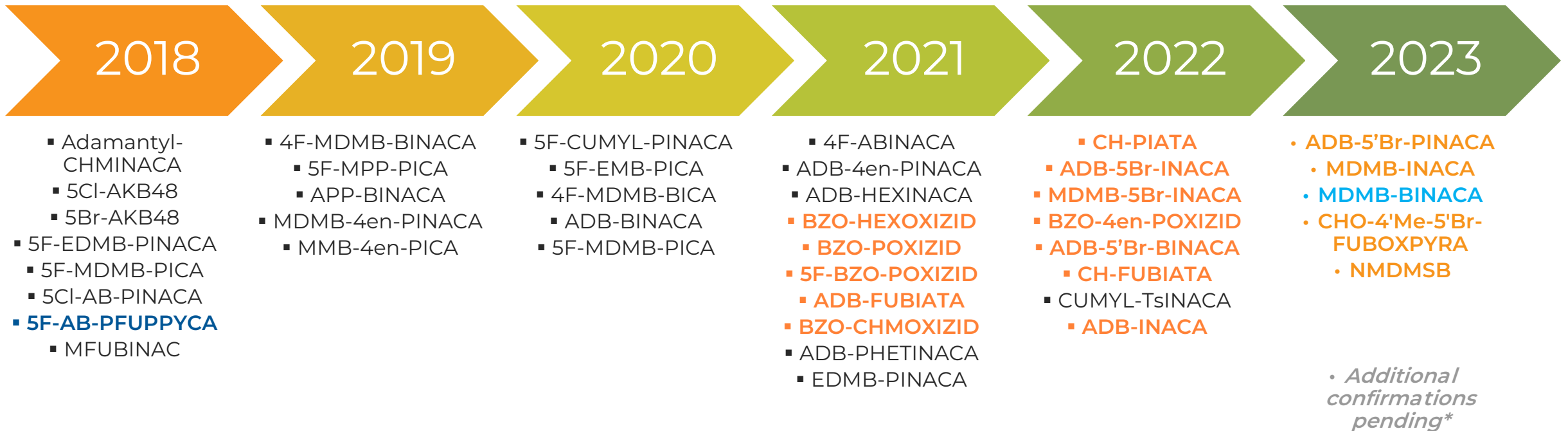


# SHIFTING TIDES IN THE UNITED STATES



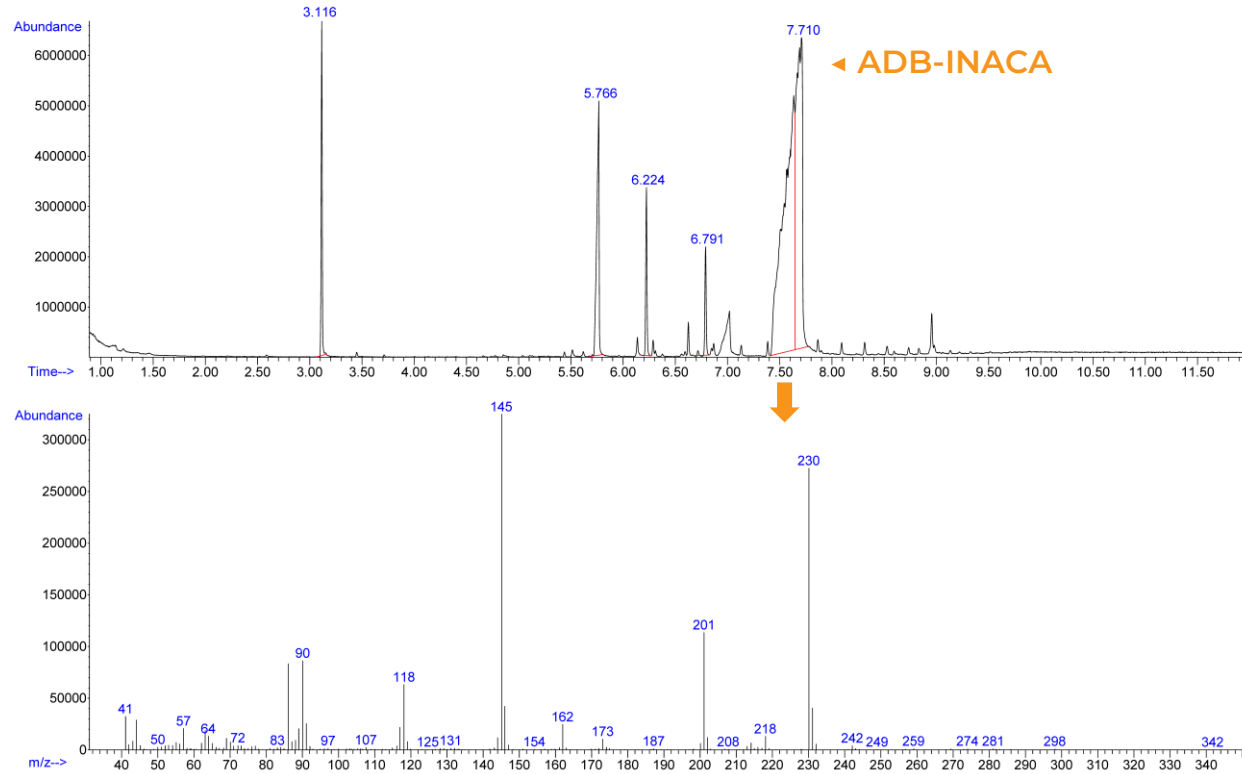
# EVOLUTION OF SYNTHETIC CANNABINOIDS

## ▪ New synthetic cannabinoid discoveries in the United States since 2018

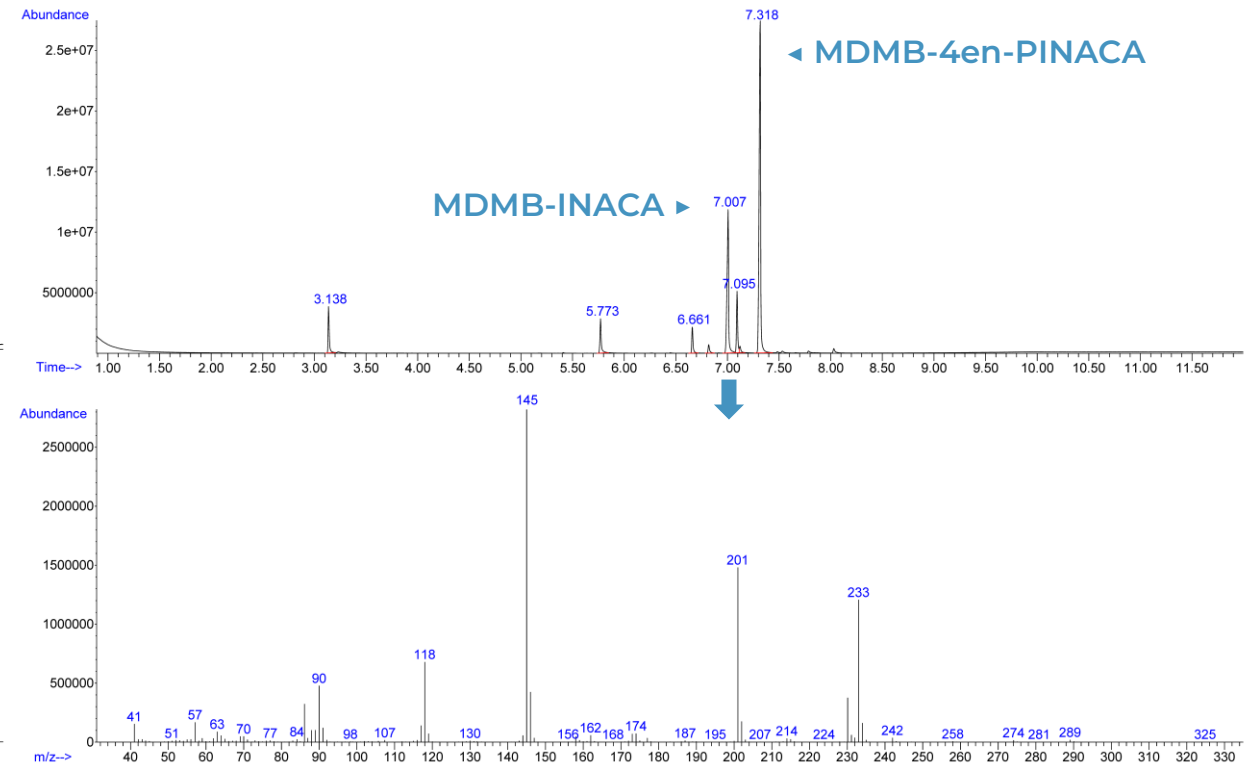


# SYNTHETIC CANNABINOIDS PRECURSORS

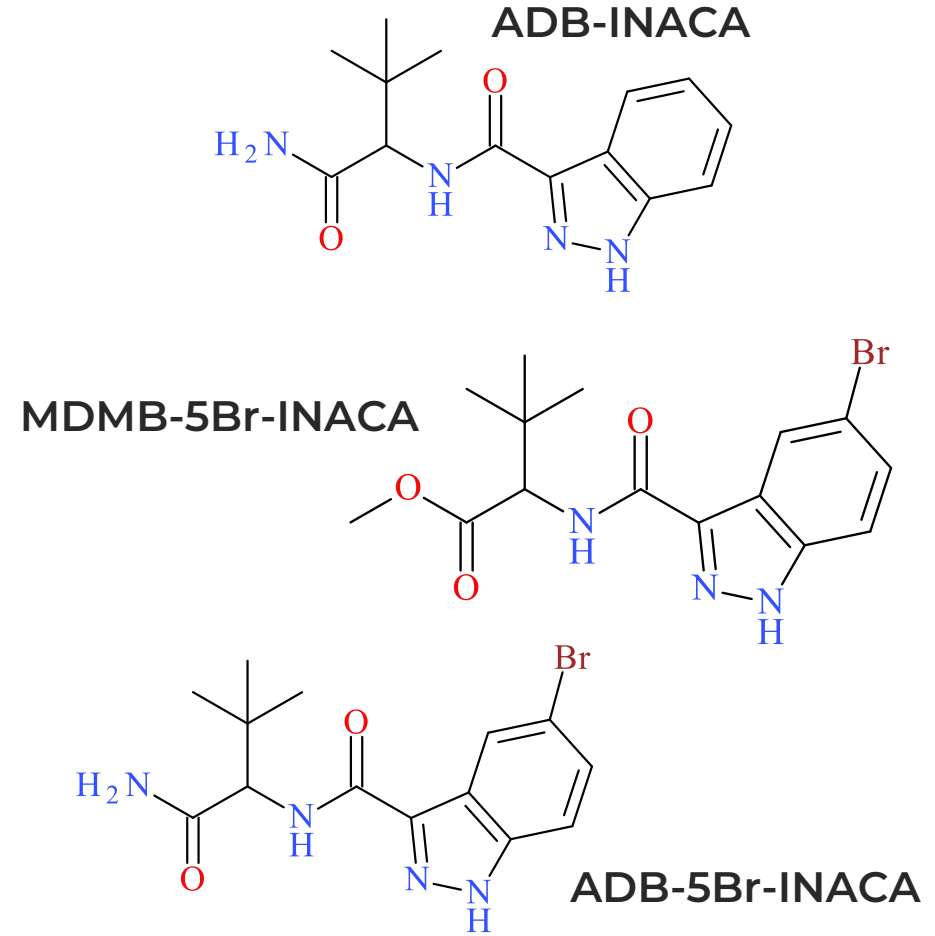
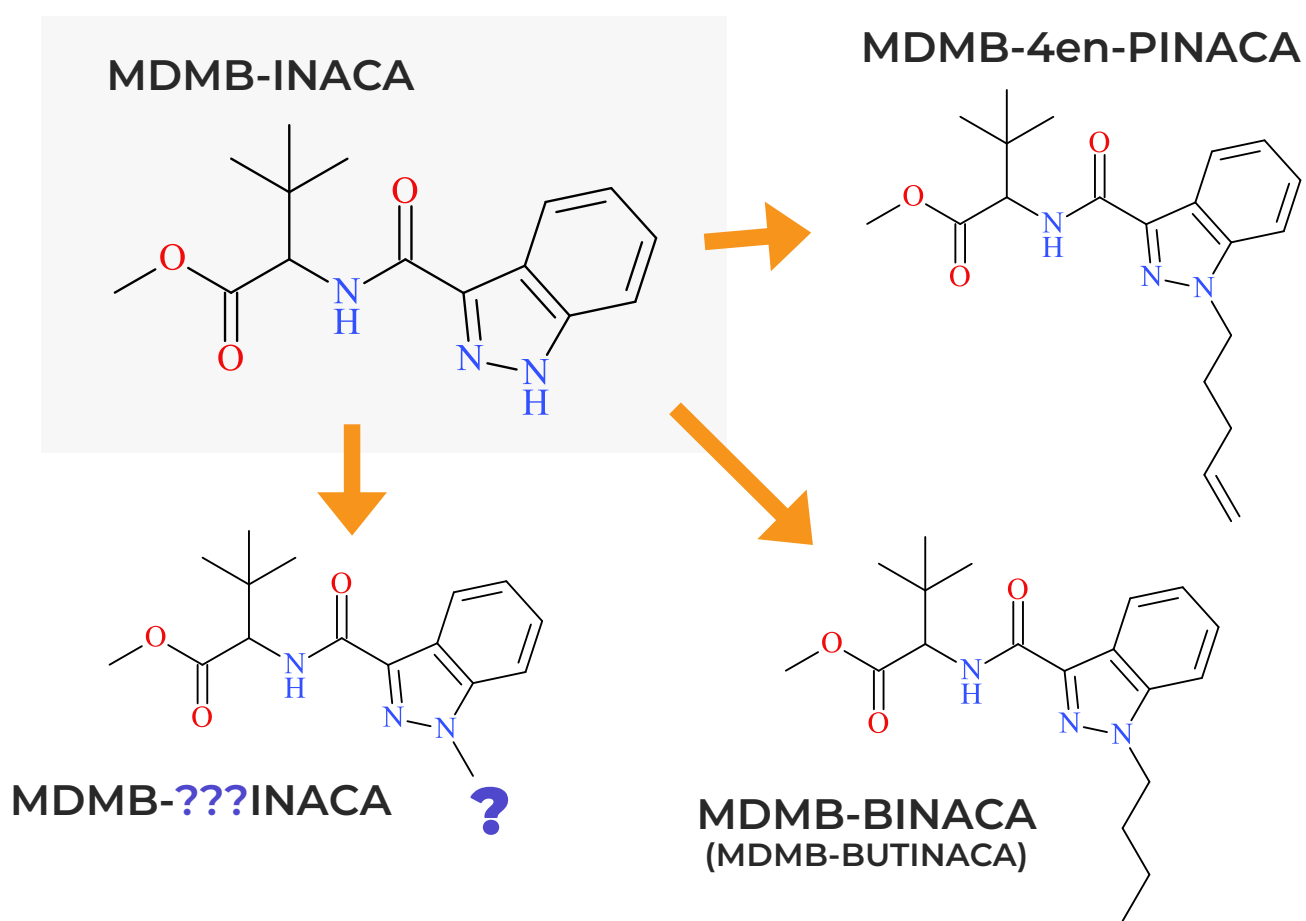
## ADB-INACA



## MDMB-INACA & MDMB-4en-PINACA



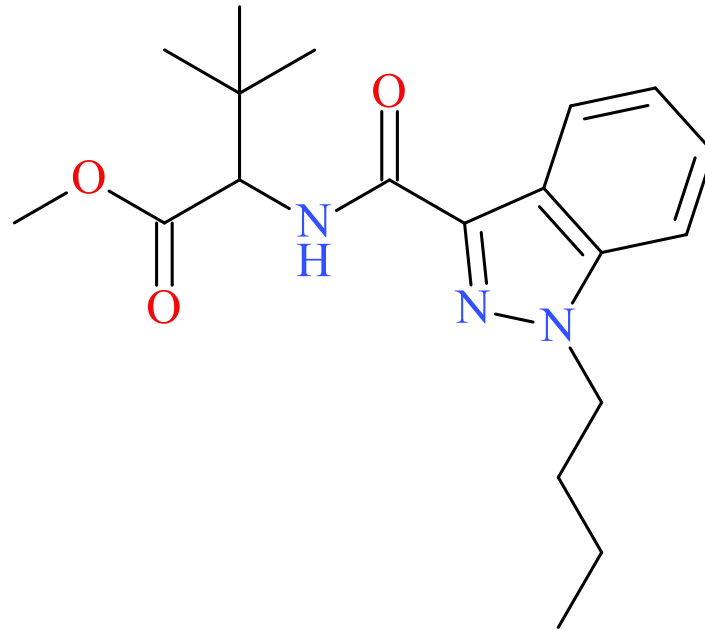
# SYNTHETIC CANNABINOIDS PRECURSORS





# MDMB-BINACA (MDMB-BUTINACA)

- **First reported** → June 2023
- **Locations:**
  - United States
  - United Kingdom
- **Case Types:**
  - Suspected drug overdose
  - In-custody death
- **Toxicology:**
  - One case also contained MDMB-4en-PINACA
  - MDMB-BINACA 3,3-Dimethylbutanoic Acid
  - Concentrations: 0.3 ng/mL and 0.6 ng/mL



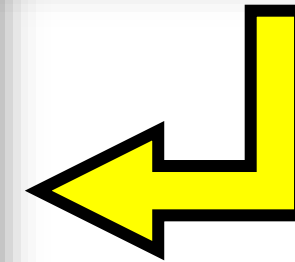


# CONCLUSIONS



# CONCLUSIONS

- The 2023 **synthetic cannabinoid market** is different
  - Impacts of class-wide scheduling action
  - Similarities in markets around the world
- Market is beginning to find “**new normal**”
  - Precursors now commonly detected
  - Active and seemingly potent SCRAAs are emerging
- Further **surveillance** is needed
- Continued **research** efforts are needed



# ACKNOWLEDGEMENTS

- **CFSRE Team**

- Barry Logan
- Alex Krotulski
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- Alyssa Reyes
- Brianna Stang
- Alexis Quinter
- Max Denn
- Many others!

- **NMS Labs**

- Donna Papsun

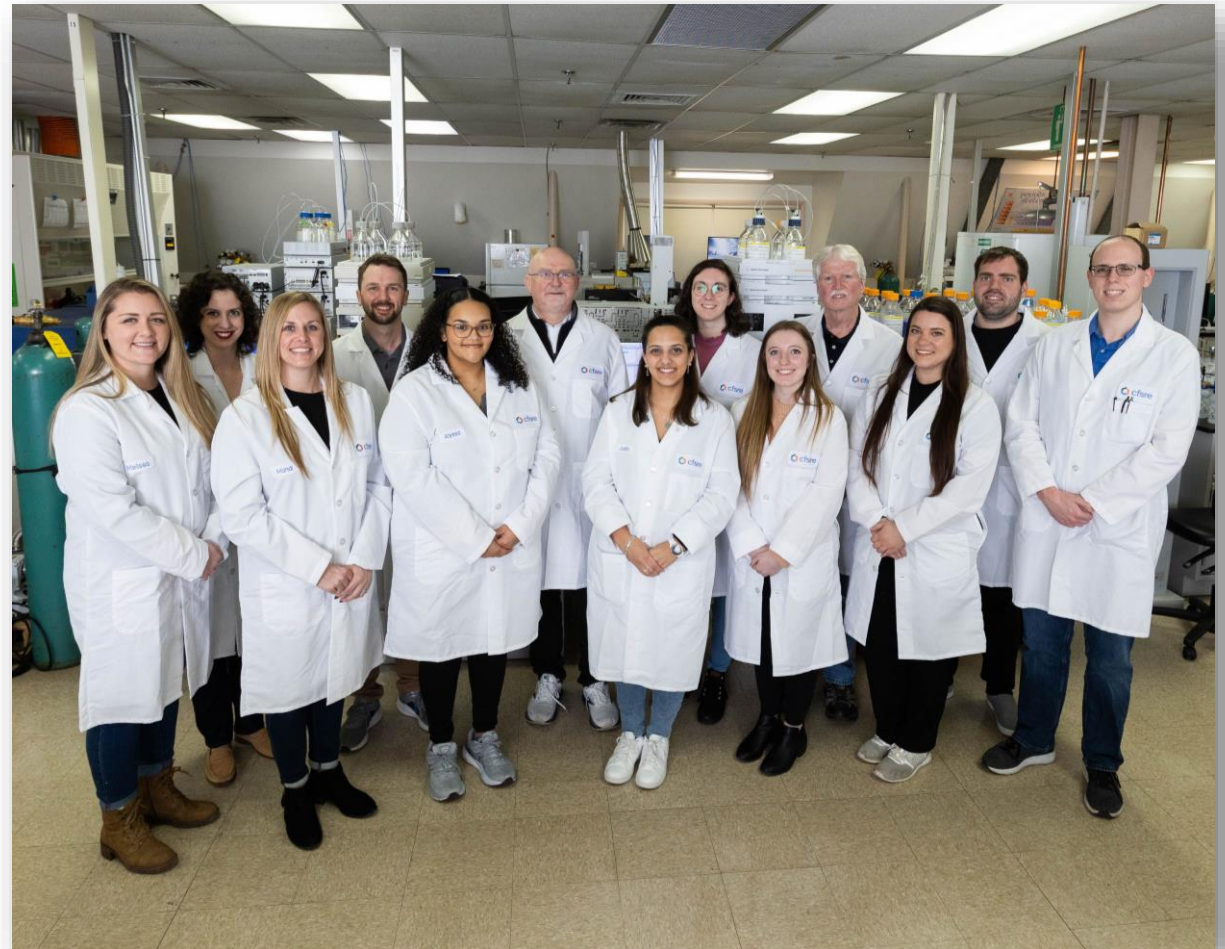
- **Funding Agencies**

- National Institute of Justice (NIJ)

- **Collaborators & Partners**

- **Cayman Chemical**

- Donna Iula
- Rob Schelkun





**THANK YOU!**      **QUESTIONS?**



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