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OXYCONTIN® MIMIC TABLETS SEIZED IN FLORIDA

The Pinellas County Forensic Laboratory received two separate submissions of suspected oxycodone tablets. The first submission contained four green, round, biconvex tablets (average tablet weight 250 milligrams), and the second submission contained six green, round, biconvex tablets (average tablet weight 300 milligrams) both imprinted with "OC" on one face and "80" on the opposite face. Both tablets were similar in appearance to the 80 milligram OxyContin® tablets (see Photos 1 and 2). However, the first submission was darker in color, thinner and had a larger imprint with wider spacing (right in photos). The second submission was consistent in color and size, but had wider spaced markings (left in photos). Analysis of the first submission (total net mass 1.0 grams) by GC/MS identified no oxycodone, but rather a mixture of melatonin and acetaminophen. Analysis of the second submission (total net mass 1.8 grams) by TLC, GC/MS, and GC/IRD identified no oxycodone, but rather a mixture of diazepam (not quantitated), orphenadrine, and acetaminophen. These are the first pharmaceutical mimic tablets submitted to this laboratory.

Photo 1

Photo 2

MDMA CAPSULES SEIZED IN CALIFORNIA

The Los Angeles Police Department's Scientific Investigation Division Narcotics Analysis Unit received a vial containing 29 clear capsules, each containing a brown crystalline material (total net mass 4.6 grams) (see Photo 3). Also submitted as a separate item was a ziplock bag containing loose brown crystalline material (total net mass 27.4 grams). Additionally, marijuana, cocaine, cocaine base and Ecstasy tablets, as confirmed by analysis, were also seized. Analysis of both brown crystalline submissions by color tests (Wagner's - brown, Marquis - black, Sodium Nitroprusside - blue for secondary amine) and GC/MS (basic extract performed into chloroform) confirmed the presence of MDMA in both samples. The samples were not quantitated but had a high loading based on the TIC. No adulterants were detected in either sample. This is the first submission of MDMA as a brown crystalline material in clear capsules to the laboratory.

Photo 3

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MDMA MIMIC TABLETS SEIZED IN MICHIGAN

Photo 4

The DEA North Central Laboratory recently received three submissions of MDMA mimic tablets: 9 round red-coated tablets (total net mass 2.5 grams), 22 round lime green-coated tablets (total net mass 6.2 grams) (see Photo 4), and 14 round purple-coated tablets (total net mass 4.0 grams), each with a butterfly imprint on both faces. Although the tablets appeared uniform, the coatings were thin and varied in consistency, suggesting that the coatings were illicitly produced. Analysis of the tablets by GC/MS, GC/FID, LC/MS, and UV did not reveal the presence of a controlled substance.

JWH-073 (PURPORTED "SPICE" INGREDIENT) IN VIRGINIA

The Virginia Department of Forensic Science's Central Laboratory received a small glass vial containing a light yellow powder. Analysis of the powder (total net mass 0.27 gram) by color tests (Marquis - yellow to brown, Mecke - yellow), TLC, AccuTOF-DART, GC/FID and GC/MS indicated 1-Butyl-3-(1-naphthoyl)indole, also known as JWH-073. JWH-073 is a cannabimimetic indole and is included in the DEA's list of Drugs and Chemicals of Concern. It has been purported to be an ingredient in "Spice" herbal mixtures. This is the laboratory's first encounter with a "Spice" chemical.

[Editor's Notes: For more information about Spice, see: Microgram Bulletin 2009:42(3):23-24.]

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OXYCONTIN® MIMIC TABLETS SEIZED IN VIRGINIA

The DEA Mid-Atlantic Laboratory recently received 59 round, green tablets imprinted with "80" on one face and "CDN" on the opposite face, suspected OxyContin®. The tablets (film-coated over a cream-colored interior) averaged 1.0 centimeter in diameter by 0.5 centimeters thick, and weighed approximately 303 milligrams. The tablets were presumptively identified by markings to contain 80 milligrams of oxycodone. Analysis of the tablets (total net mass 17.9 grams) by GC/MS, GC/FID, FTIR-ATR, CE and LC identified not oxycodone, but rather heroin, *l*-ephedrine, *d*-pseudoephedrine and phenylpropanolamine (not quantitated). Tramadol was also presumptively identified as the primary ingredient in the tablets. This is the first known submission of OxyContin® mimic tablets containing heroin, *l*-ephedrine, *d*-pseudoephedrine and phenylpropanolamine to the Mid-Atlantic Laboratory.

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SELECTED REFERENCES

[The Selected References section is a compilation of recent publications of presumed interest to forensic chemists. Unless otherwise stated, all listed citations are published in English. Abbreviated mailing address information duplicates that provided by the abstracting service. Patents and Proceedings are reported only by their *Chemical Abstracts* citation number.]

1. Howard C, Gilmore S, Robertson J, Peakall R. **A cannabis sativa STR genotype database for Australian seizures: forensic applications and limitations.** Journal of Forensic Sciences 2009;54(3):556-563. [Editor's Notes: A genetic database was established with the aim of documenting the genetic diversity of Cannabis sativa in Australia for future utilization in forensic investigations. Contact: School of Botany and Zoology, The Australian National University, Canberra, ACT 0200, Australia.]

2. Jermain JD, Evans HK. **Analyzing Salvia divinorum and its active ingredient salvinorin A utilizing thin layer chromatography and gas chromatography/mass spectrometry.** Journal of Forensic Sciences 2009;54(3):612-616. [Editor's Notes: Presents results of the subject analyses. Contact: Scientific Investigations Division, San Bernardino County Sheriff's Department, San Bernardino, CA 92415.]

3 Steiner R, Larson R. **Validation of the direct analysis in real time source for use in forensic drug screening.** Journal of Forensic Sciences 2009;54(3):617-622. [Editor's Notes: Validation of a rapid screening technique for drugs of abuse utilizing the direct analysis in real time (DART) ion source coupled to an accurate mass time-of-flight mass spectrometer is presented. Comparison of this technique to established analytical protocols is also presented. Contact: Central Laboratory Drug Analysis section, Virginia Department of Forensic Science, Richmond, VA 23219.]

4. Uchiyama N, Kikura-Hanajiri R, Kawahara N, Goda Y. **Identification of a cannabimimetic indole as a designer drug in a herbal product.** Forensic Toxicology 2009;27(2):61-66. [Editor's Notes: A cannabimimetic indole has been identified as a new adulterant in an herbal product being sold illegally in Japan for its expected narcotic effect. Analysis by LC/MS and GC/MS indicated that the product contained two major compounds. Contact: National Institute of Health Sciences, 1-18-1 Kamiyoga, Setagaya-ku, Tokyo 158-8501, Japan.]

5. Zhang Y, Tobias H, Brenna JT. **Steroid isotopic standards for gas chromatography-combustion isotope ratio mass spectrometry (GCC-IRMS).** Steroids 2009;74(3):369-378. [Editor's Notes: The procedure for the creation of isotopic steroid mixtures resulting in consistent standards with isotope ratios traceable to the relevant international reference material is presented. Contact: Division of Nutritional Sciences, Savage Hall, Cornell University, Ithaca, NY 14853.]

Additional References of Possible Interest:

1. Colella M, Parkinson A, Evans T, Lennard C, Roux C. **The recovery of latent fingermarks from evidence exposed to ionizing radiation**. Journal of Forensic Sciences 2009;54(3):583-590. [Contact: Australian Nuclear Science & Technology Organisation, Menai, NSW 2234, Australia.]

2. Silvestre V, Mboula VM, Jouitteau C, Akoka S, Robins RJ, Remaud GS. **Isotopic 13C NMR spectrometry to assess counterfeiting of active pharmaceutical ingredients: Site-specific 13C content of aspirin and paracetamol**. Journal of Pharmaceutical and Biomedical Analysis 2009;50(3):336-341. [Editor's Notes: Quantitative isotopic 13C NMR is shown to be a very promising and effective tool for assessing the counterfeiting of medicines, as exemplified by an analysis of aspirin (acetylsalicylic acid) and paracetamol (acetaminophen) samples collected from pharmacies in different countries. It is proposed as an essential complement to 2H NMR and IRMS. Contact: Chemistry and Interdisciplinarity: Synthesis, Analysis and Modeling (CEISAM), UMR6230, 2 rue de la Houssiniere, University of Nantes-CNRS, BP 92208, Nantes F-44322, France.]

3. Upreti VV, Eddington ND, Moon KH, Song BJ, Lee IJ. **Drug interaction between ethanol and 3,4-methylenedioxymethamphetamine ("Ecstasy").** Toxicology Letters 2009;188(2):167-172. [Editor's Notes: A case study. Contact: Department of Pharmaceutical Sciences, School of Pharmacy, University of Maryland, Baltimore, MD 21201.]

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