## Drug Status Report

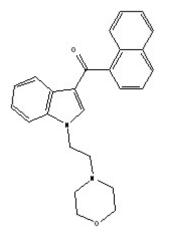
## Drug: JWH-200

Drug Name Status: JWH-200 is the common name.

Chemical Name: (1-(2-morpholinoethyl)-1H-indol-3-yl)(naphthalen-1-yl)methanone

Other Names: [1-(2-(4-morpholinyl)ethyl)-1H-indole-3-yl]-1-naphthalenyl-methanone

## **Chemical structure:**



Molecular Formula:  $C_{25}H_{24}N_2O_2$ 

Pharmacological class / Application: Cannabinoid receptor agonist.

## **International status:**

US: The substance is not listed on the schedules to the US Controlled Substances Act.

United Nations: The substance is not listed on the Yellow List - List of Narcotic Drugs under International Control nor the Green List - List of Psychotropic Substances under International Control.

Canadian Status: JWH-200 is one of several synthetic cannabimimetic substances that were synthesized to assess the binding affinities of a series of 3-(alkoxy-1-naphthoyl)indoles to the  $CB_1$  and  $CB_2$  receptors<sup>1</sup>. JWH-200 has been reported in the literature to have a strong binding affinity for the  $CB_1$  receptor, and display a potent agonist activity which is comparable to that of

<sup>&</sup>lt;sup>1</sup>Padgett, LW. (2005) Recent developments in cannabinoid ligands, Life Sci. **77**: 2767-798.

the cannabinoid receptor agonist (+)-WIN-55,212<sup>2</sup>.

Cannabinoid receptor agonists have been declared to be included within item 1 of Schedule II to the CDSA by virtue of being "similar synthetic preparations." Cannabinoid receptor antagonists have been declared to fall outside item 1 of Schedule II to the CDSA. Given the high affinity of JWH-200 for the CB<sub>1</sub> receptors as well as *in vivo* evidence of its potent agonist activity, JWH-200 should be included in item 1 of Schedule II.

Recommendation: JWH-200 is included in item 1 of Schedule II to the CDSA and is a controlled substance.

February 25<sup>th</sup>, 2010

<sup>&</sup>lt;sup>2</sup>Compton, DR. *et al.* (1991) Aminoalkylindole analogues: Cannabimimetic activity of a class of compounds structurally distinct from  $\Delta^9$ -tetrahydrocannabinol. J. Pharmacol. Exp. Ther. **263**:1118-1126.