STATUS DECISION OF CONTROLLED AND NON-CONTROLLED SUBSTANCE(S)

Substance:  
I - JWH-073 4-butanoic acid metabolite  
II - JWH-073 4-hydroxybutyl metabolite  
III - JWH-018 5-hydroxypentyl metabolite  
IV - JWH-018 5-pentanoic acid metabolite

Based on the current information available to the Office of Controlled Substances, it appears that the above substance is:

Controlled  ✔
Not Controlled  ☐

under the schedules of the Controlled Drugs and Substances Act (CDSA) for the following reason(s):

• The substances are metabolites of JWH-073 or JWH-018 and are included under item 1 of Schedule II to the CDSA.

Prepared by: ___________________________ Date: Jan 4th 2011

Evelyn Soo

Verified by: ___________________________ Date: __________

Marianne Tang

Approved by: ___________________________ Date: __________

DIRECTOR, OFFICE OF CONTROLLED SUBSTANCES

This status was requested by: "third party information removed as per agreement with applicant"
Drug Status Report

**Drug:**
- I - JWH-073 4-butanoic acid
- II - JWH-073 4-hydroxybutyl
- III - JWH-018 5-hydroxypentyl
- IV - JWH-018 5-pentanoic acid

**Drug Name Status:**
- I - JWH-073 N-butanoic acid metabolite
- II - JWH-073 N-(4-hydroxybutyl) metabolite
- III - JWH-018 N-(5-hydroxypentyl) metabolite
- IV - JWH-018 N-pentanoic acid metabolite are the common names.

**Chemical Name:**
- I - 4-(3-(1-naphthoyl)-1H-indol-1-yl-butanoic acid
- II - 1-(5-hydroxybutyl)-1H-indol-3-yl)(naphthalen-1-yl)methanone
- III - 1-(5-hydroxypentyl)-1H-indol-3-yl)(naphthalen-1-yl)methanone
- IV - 5-(3-(1-naphthoyl)-1H-indol-1-yl)pentanoic acid

**Chemical structure:**

![Chemical structure I](image1)

![Chemical structure II](image2)

![Chemical structure III](image3)

![Chemical structure IV](image4)

**Molecular Formula:**
- I - C\(_{23}\)H\(_{19}\)NO\(_3\)
- II - C\(_{23}\)H\(_{21}\)NO\(_2\)
- III - C\(_{24}\)H\(_{23}\)NO\(_2\)
- IV - C\(_{24}\)H\(_{21}\)NO\(_3\)

**Pharmacological class / Application:** Metabolites of cannabinoid receptor agonists
**CAS-RN:** Unknown

**International status:**

US: JWH-073 N-butanoic acid metabolite, JWH-073 N-(4-hydroxybutyl) metabolite, JWH-018 N-(5-hydroxypentyl) metabolite and JWH-018 N-pentanoic acid metabolite are not listed in the schedules to the CSA and are not mentioned anywhere on the DEA website. However, it is noteworthy that JWH-018 and JWH-073 are among the five synthetic cannabinoids that became temporarily controlled on November 24, 2010 under the emergency scheduling authority of the DEA, and as metabolites of JWH-073 and JWH-018, these substances may also be considered controlled under the analogue provision of the CSA.

United Nations: The substances is not listed specifically 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-073 N-butanoic acid metabolite, JWH-073 N-(4-hydroxybutyl) metabolite, JWH-018 N-(5-hydroxypentyl) metabolite and JWH-018 N-pentanoic acid metabolite are not listed specifically in the Schedules to the CDSA. However, both JWH-018 and JWH-073 have been reviewed and are controlled under item 1 of Schedule II to the CDSA under the heading “Cannabis, its preparations, derivatives and similar synthetic preparations, including”. As metabolites of JWH-073 and JWH-018, these substances must also be included under item 1 of Schedule III to the CDSA on the basis that these are derivatives of JWH-073 and JWH-018.

**Recommendation:** JWH-073 N-butanoic acid metabolite, JWH-073 N-(4-hydroxybutyl) metabolite, JWH-018 N-(5-hydroxypentyl) metabolite and JWH-018 N-pentanoic acid metabolite are included under item 1 of Schedule II to the CDSA and are controlled substances.

**Date:** 4 January 2011