

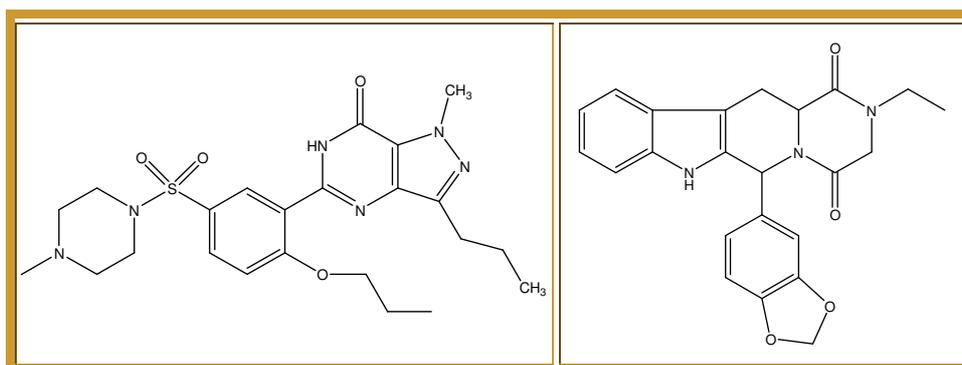
### III. Counterfeit Drug and Medicine Analysis

Counterfeit medicines can be easily found on the market and cause more serious citizens' health issue in Taiwan. Three major kinds of medicines including weigh-loss drugs, erectile dysfunction drugs and traditional Chinese medicines are frequently counterfeited in Taiwan. Hundreds of counterfeit medicine cases are sent to this laboratory for analysis each year.

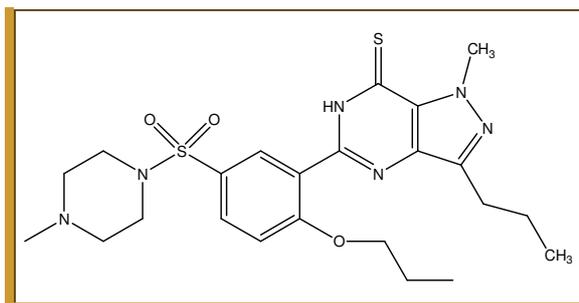


**Counterfeit Erectile Dysfunction Drugs**

Like emerging designer drugs, the counterfeit medicine seizures can be occasionally found containing newly erectile dysfunction and weigh-loss components. By using precise instruments, the accurate chemical structures of the newly components are analyzed and collected in the database of emerging designer drugs.

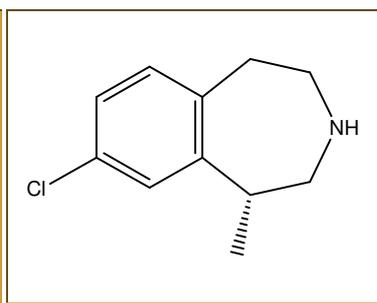


**Sildenafil analogue (M.W. 488.61)**



**Sildenafil analogue (M.W. 504.68)**

**Tadalafil analogue (M.W. 403.43)**



**Lorcaserin**

In addition to components analysis of counterfeit drugs medicines, differentiation of the origin of them is a unique task for this laboratory which is the only test laboratory qualified to do this task in the government of Taiwan. The GC/MS, Inductively Coupled Plasma /Mass Spectrometer (ICP/MS) and Stable Isotope Ratio Mass Spectrometer (IRMS) with gas chromatograph and pyrolyzer inlet system are used for differentiation of the origin of drug and medicine seizures.



**ICP/MS**

**GC/MS**



**IRMS**