



Pierce Kavanagh<sup>1</sup>, Paul Spiers<sup>1</sup>, Jayant Sharma<sup>1</sup>, John O'Brien<sup>2</sup>, Sinead McNamara<sup>3</sup>, Daniel Angelov<sup>1</sup>, Sean McDermott<sup>1</sup>, Daniel Mullan<sup>1</sup>, Brian Talbot<sup>4</sup> and Sheila Ryder<sup>4</sup>

<sup>1</sup> Department of Pharmacology and Therapeutics, School of Medicine, Trinity Centre for Health Sciences, St. James's Hospital, Dublin 8.

<sup>2</sup> School of Chemistry, Trinity College, Dublin 2.

<sup>3</sup> Drug Treatment Centre Board, Pearse Street, Dublin 2.
 <sup>4</sup> School of Pharmacy and Pharmaceutical Sciences, Trinity College, Dublin 2.

## Are Head Shops wrecking chemists' heads?

Did you hear about the one about the Irish chemist who walked into a Head Shop.....? Well maybe you haven't so here it is:

Over the past few years we have witnessed an explosion in the number of Head Shops opening their doors in Ireland. Since benzylpiperazine was banned in March 2009 there was a significant increase in the number of alternative 'legal highs' offered for sale. New brands appeared regularly.

To control this blossoming 'drugs' market a number cannabimimnetics, cathinone and piperazine derivatives were banned by the Irish government on May 11, 2010 ('511'). Then, the more comprehensive Criminal Justice (Psychoactive Substances) Act 2010 was signed by the Irish president on July 14, 2010 ('714') and came into effect on August 23, 2010 ('823'). This states that "A person who sells a psychoactive substance knowing or being reckless as to whether that substance will be consumed by a person or is being acquired or supplied for human consumption shall be guilty of an offence".

To monitor the effect that these recent events have had on the range of 'legal highs' available we have analysed samples from three of the major eras in the recent evolution of the Irish Head Shop namely: the months leading up to '511', the period between '511' and '714' and the period between '714' and '823'. As such information is of use to legislators, law enforcement authorities and healthcare professionals we have compiled the data into an easy to read pictorial format (our Head Shop 'Legal Highs' Active Constituents Identification Charts) which we present here.

May 11, 2010: Certain cannabimimetics, piperazine and cathinones banned

**'511'** 

August 23, 2010: Criminal Justice (Psychoactive Substances) Act enforced

**'823'**