



EUropean-wide, Monitoring, Analysis and knowledge Dissemination on Novel/ Emerging psychoactive S (EU-MADNESS):

integrated EU NPS monitoring & profiling to prevent health harms and update professionals



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## Background

- Based on the rapid increase in the number of NPS (EMCDDA, 2013) and the continuing high prevalence of drug-related deaths (EU, 2012), the European Commission recently awarded funding to a multi-institutional partnership across five countries led by the University of Hertfordshire, UK, to undertake a project looking at NPS.

## The Project

- European Commission – funding awarded of € 635,215.
- Started 1 April 2014 & lasts 24 months.
- Principal Investigator – Professor Fabrizio Schifano
- 12 European Partner Institutions across 5 countries

## Objective

- To develop integrated monitoring and profiling of Novel Psychoactive Substances (NPS) in Europe in order to prevent health harms and update relevant professionals.

## Aim

- To monitor, test, profile, and feed back into education and prevention knowledge relating to the types of NPS emerging, their associated characteristics and potential harms

## Methodologies

- 4 integrated Workstreams



**Workstream 1** – led by John Corkery; collaborators from UK, Hungary, Italy

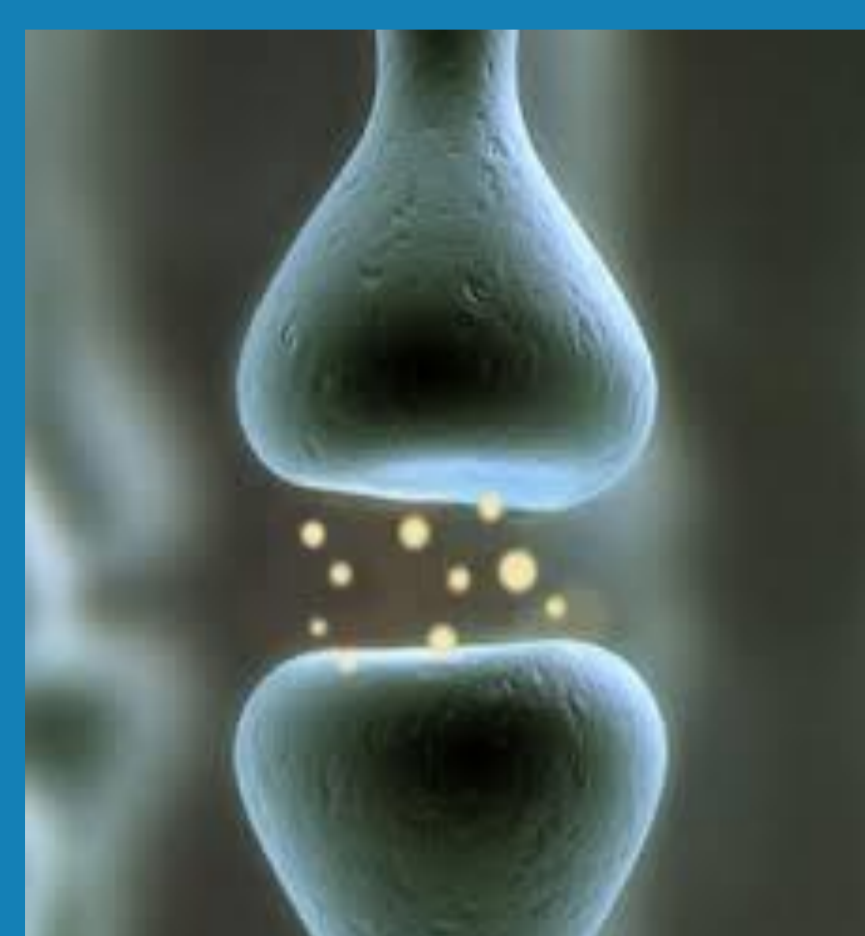
This involves collecting a range of information from providers in several countries relating to individuals who have reported using NPSs or died from such use.

Recording of such data allows ascertainment of groups exposed to specific NPSs and their associated harms, helping to formulate improved approaches to identification and recording of deaths and ‘near misses’ linked to NPS use.

Data from these reports will inform the choice of compounds to be investigated in WS2 and WS3, and will be disseminated via WS4, with appropriate interpretation and guidance, to different stake-holders including those involved in health professionals’ training.

**Workstream 2** – led by Dr Jacqueline Stair, with support from Dr Stewart Kirton, Professor Mire Zloh (all UH), with Professor Raffaele Giorgetti (Italy)

- To develop computational approaches which exploit data from both laboratory based and handheld Raman spectroscopy.
- Computational approaches will be used to estimate or predict information regarding NPS.
- This work is linked with Workstreams 1 and 3.



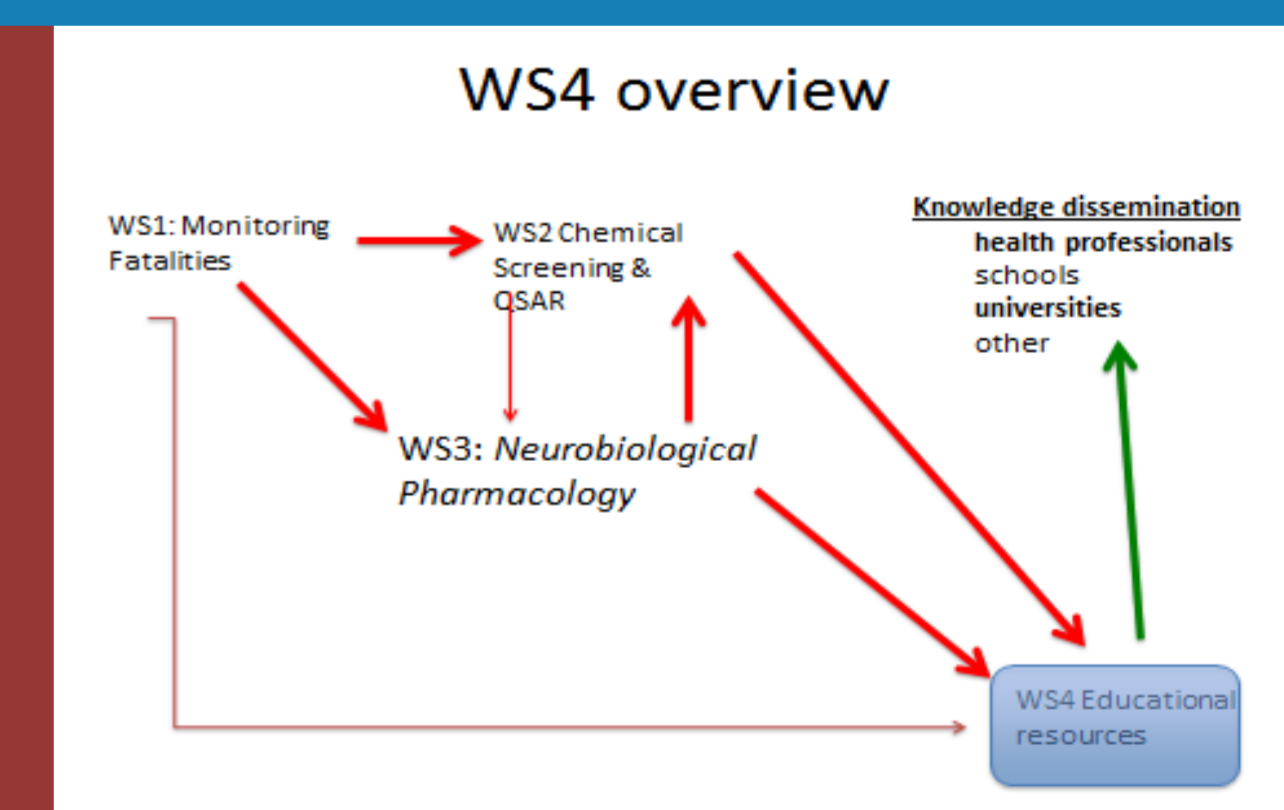
**Workstream 3** – led by Dr Colin Davidson, St George’s University of London (SGUL), with Professor Gaetano Di Chiara (Italy) and Professor Emilio Ambrosio (Spain)

- in vitro* neurochemical testing of NPS in rat brain slices, aorta
- in vivo* neurochemical testing in whole rats
- in vivo* behavioural testing in rat models of drug abuse

The most interesting of the NPSs, determined by these *in vitro* assays, will be examined using *in vivo* dopamine and 5-HT efflux in the accumbens using microdialysis. Long-term effects of selected NPS on rodent cognitive function will be examined as well.

**Workstream 4** – led by Dr Colin Davidson with Mrs Christine Goodair (SGUL), with partners in Scotland (Professor Simon Maxwell), Germany (Professor Norbert Scherbaum), Italy (Professor Giovanni Martinotti and Professor Raffaele Giorgetti), and Spain (Professor Magi Farré)

- Ask healthcare educationalists what they know/teach about NPS
- Make new learning resources in multiple languages
- Disseminate resources
- Get feedback



## Anticipated Benefits

- Reduction in harms and adverse consequences of use, including death, through enhanced knowledge on the part of health professionals providing interventions, delivering services and treatment.
- Beneficiaries: Emergency Services, paramedics, police officers/coronial staff, medico-legal professionals, educators, national and EU authorities (e.g. National Focal Points, EMCDDA)

## Expected Outputs

- Peer-reviewed journal articles
- Multi-lingual Fact sheets
- PowerPoint Presentations for teaching
- Website (updated regularly and offering membership)
- Apps; interactive online Q&As
- Local Scientific/Educational meetings poster/Oral communications
- School visits to discuss NPS
- Seminars/Scientific meetings