

In this context, a massive open online course (MOOC) about Toxicology is being developed. It is called TOX-OER (“Learning Toxicology through Open Educational Resources” acronym), and it is implemented under the Erasmus + Program. This project, led by the University of Salamanca, is being developed by a consortium of professionals belonging to 7 countries that includes the Universities of Salamanca (Spain), Porto (Portugal), Bologna (Italy), Charles (Czech Republic), Kymenlaakson (Finland), Transylvania (Romania) and a research institute (“Space Research and Technology Institute”, Bulgaria). The MOOC platform consists on 7 different modules that form 4 courses with specific toxicological content. According to the philosophy of this “open, massive and free” resources, the material will be available in English and in the native languages of the 7 partners, in order to reach out to the maximum number of people. This project will contribute to the dissemination of Toxicology knowledge.

For more information, visit: toxoeer.com

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P20-030

Poisoning of domestic animals: 2015 data from the Poison Control Centre of Milan



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In 2015, the Human Poison Control Centre of Milan (MPPC) recorded 248 enquiries related to animal poisoning, 74.2% of which were from veterinarians and 26.8% from animal owners. The dog was the species most commonly involved (81.6%) followed by the cat (15.6%). Enquiries related to other species (2.8%) were much fewer in comparison and involved horses, cattle, goats, rabbits and ferrets. Data showed that in 90.3% of the cases, the route of exposure appeared to be oral intake, followed by cutaneous exposure (5.3%). Pesticides were the primary cause of poisoning (32.3%) followed by household products (31.9%), drugs (21.8%), plants (10.9%), zootoxins (1.6%) and foods (1.6%). Insecticides (41.3%) proved to be the most common group of pesticides involved, followed by rodenticides (30.0%), molluscicides (11.3%), fungicides (10.0%) and herbicides (7.5%). Exposure to pyrethrins-pyrethroids accounted for the majority of the insecticide-related enquiries (65.6%). Interestingly, analysis of data revealed an increase number of enquiries related to the skeletal muscle relaxant baclofen (16.7% of drug-related calls) and to iron phosphate-based molluscicides (33.3% of molluscicide-related calls). The outcome was reported in 54.0% of cases and death accounted for 7.5% of them. In conclusion, these data provide a general overview of domestic animal poisoning in Italy and are helpful in determining new trends.

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Is the cystine-glutamate antiporter involved in the extinction of ethanol-induced conditioned place preference?



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Ethanol addiction is characterized by loss of control over the drug use with difficulties to extinguish drug seeking and frequent relapse. Alterations of glutamate neurotransmission have been related to drug addiction and studies have shown that extracellular glutamate levels are regulated by many proteins including cystine-glutamate antiporter (xCT). Thus, the aim of this study was to evaluate the relation between behavioral extinction of ethanol seeking in the conditioned place preference (CPP) procedure and xCT levels in brain areas such as amygdala, nucleus accumbens and medial prefrontal cortex in mice. Male Swiss mice were first submitted to CPP protocol (4 pairings to ethanol and 4 to vehicle) and animals that acquired preference for ethanol proceed to extinction phase (8 days). Sessions lasted 20 min once daily. Ethanol conditioning was induced by intraperitoneal injections of ethanol (1 g/kg) and confinement in the initially less preferred chamber and vehicle injection followed by confinement in the preferred chamber. Immediately after the extinction test, animals were sacrificed and the brains were removed. Brain areas were dissected out and xCT levels were measured by western blot ($n = 7/\text{group}$). Results showed that the xCT levels were significantly lower in the nucleus accumbens of mice that did not extinguished the preference for ethanol-paired chamber (72.66%) compared to mice that showed extinction (100%) ($p < 0.05$, Student- t test). No alteration was revealed in the other brain areas. These results suggest that the xCT in the NAc is a possible target to drugs that reduce ethanol seeking.

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Evaluating the effect of vitamins, minerals, herbs and supplements intake on learning performance in young adults (18–22 years old)



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The consumption of vitamins, minerals, herbs and other supplements (VMHS) has grown in popularity over the past several years due to an increase in health and physical appearance awareness within the young population. However, there is very little informa-