

TEST THERAPADD 1

Evaluation of new compounds for the treatment of tobacco use related disorders

Background

Tobacco is one of the most addictive drugs with up to 40% of users developing addiction. Tobacco users are estimated 1.2 billion worldwide and 70% of them would like to quit. Nicotine is the main addictive compound of tobacco. We have developed a procedure that is aimed at evaluating the therapeutic potential of new psychoactive compounds in the treatment of nicotine abuse.

Assay principle

Compounds with an anti-addictive potential should decrease nicotine intake, motivation for nicotine and/or risk of relapse. Nicotine intravenous self-administration in rats is used as a model of tobacco abuse. Because **the phase of treatment application can influence treatment efficacy**, three tests are proposed differing by the phase at which the anti-addictive compound is initiated.

Assay Information

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| Biological models | Male rats |
| Methods | Intravenous self-administration |
| Readouts | Ability to : <ul style="list-style-type: none"> • decrease nicotine intake • decrease cue-induced relapse of nicotine seeking |
| Standard reference | Varenicline, Bupropion |
| Turn around time | 10 to 12 weeks per test |

Person in charge

Dr. Véronique Deroche-Gamonet, PhD

Contact : [optopath « at » u-bordeaux.fr](mailto:optopath@u-bordeaux.fr)