

CPDD, Drug Evaluation Committee



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Submission of Compounds (ceased 2/28/07)

The Drug Evaluation Committee (DEC) stopped accepting new compounds for evaluation on 2/28/07. DEC has provided a valuable service to many in industry, academia, and government for many years. The decision to discontinue accepting compounds for evaluation was taken after much discussion, and was not an easy decision to make. We would like to thank the scientists with whom we have worked, and will aid in finding alternative mechanisms for the evaluation of new compounds. Please contact [Andy Coop](#) or [Jim Woods](#), if you would like such help. Thanks. Andy Coop, Biological Coordinator, DEC.

[Annual reports:](#)

DEC publishes annual reports on an annual basis. They can be accessed are available via the [annual report webpage](#).

[Indices:](#)

The DEC database of compounds evaluated ([INDICES](#)) is up-dated annually. Search a compound by name or code number to find the year of publication. Where available, a direct link is provided to the annual report containing the pharmacological data. If a link does not exist, please contact the Biological Coordinator (acoop@rx.umaryland.edu), who will provide a fax or mail a copy of the report.

History and procedures: The Drug Evaluation Committee (DEC) was involved with the evaluation of opioids for over 40 years, with stimulants and depressants for more than 10 years, and more recently the evaluation of cannabinoids. Drug evaluation work was carried out through the DEC as a public service, without financial charge.

Jacobson, A.E.: The history and current activities of the Drug Evaluation Committee (DEC) of the College on Problems of Drug Dependence (CPDD). In: Harris, L. S., ed. NIDA Research Monograph 174, Washington, DC, 1997. Problems of Drug Dependence 1996.

The biological coordinator of the committee (Dr. Andy Coop) received drugs which are being explored as analgesics, stimulants, and depressants researchers from universities, research institutions, governmental organizations, and pharmaceutical industry, world-wide.

Analgesics: The following assays were carried out on analgesics at the Medical College of Virginia, Virginia Commonwealth University: Antinociceptive and narcotic antagonist assessment - determined through the phenylquinone, tail flick, hot plate, and tail flick antagonism vs. morphine assays. Apparent pA₂ values have been obtained on compounds of interest using the tail-flick assay. Substitution and primary physical dependence using rat infusion assays. Single dose suppression and, if warranted, precipitated withdrawal, as well as primary physical dependence studies.

Other studies on analgesics were carried out at the University of Michigan Medical School: Self-administration - Analgesic compounds were evaluated for their potential reinforcing effects in animals experienced in intravenous opioid self administration under fixed ratio schedules. Several doses of each test compound are evaluated for their capacity to maintain responding in each of three animals. Drug discrimination assays in normal animals discriminating between saline and a prototypic mu- or kappa-opioid agonist, and in morphine-treated animals discriminating between saline and naltrexone. Analgesic studies in animals using a warm water tail-withdrawal assay. Respiratory function studies in animals breathing 5% CO₂ in air. Binding to specific opioid receptors and GTPγS in vitro measures of drug efficacy.

Stimulants and depressants: DEC offered the evaluation of stimulant or depressant types of drugs using the following methodology. Self administration studies were carried out at the University of Michigan. Animals were trained to

respond to a fixed ratio 10, time out 10, schedule of intravenous methohexital (0.1 mg/kg/inj) delivery. Test drugs were substituted for the barbiturate on a periodic basis.

Drug discrimination studies were conducted at the University of Mississippi Medical Center. The discriminative stimulus properties of drugs were determined in animals trained to discriminate pentobarbital or d-amphetamine from saline. Benzodiazepines can be distinguished from other depressants, they are blocked by flumazenil. The amphetamines are blocked by raclopride. Drug discrimination and physical dependence studies were also conducted at the University of Texas Health Science Center in San Antonio. Test compounds were evaluated for their discriminative stimulus effects and for their effects on responding maintained by food and responding maintained by shock avoidance in animals; the animals are physically dependent on a benzodiazepine and discriminate between injections of vehicle and the benzodiazepine antagonist flumazenil. Compounds were studied for their ability to substitute for the flumazenil discriminative stimulus in benzodiazepine-treated animals (i.e., precipitate withdrawal) and also for their ability to attenuate flumazenil-lever responding in monkeys that are either acutely deprived of benzodiazepine or treated with an effective dose of flumazenil (i.e., reverse withdrawal).

Cannabinoids: Ligands with activity at cannabinoid receptors were evaluated using two separate drug discrimination procedures at The University of Texas Health Science Center in San Antonio. Test compounds were evaluated for their discriminative stimulus effects in rhesus monkeys trained to discriminate Δ^9 -THC administered i.v., a procedure sensitive to agonist activity at cannabinoid receptors. Test compounds also were evaluated for their discriminative stimulus effects in Δ^9 -THC-treated rhesus monkeys trained to discriminate the cannabinoid antagonist SR 141716A administered i.v., a procedure sensitive to antagonist activity at cannabinoid receptors.

See Andy Coop's website for additional information and submission forms E-mail: Andy Coop (acoop@rx.umaryland.edu)