



## *Institutional Animal Care and Use Committee Guidelines and Policies*

*Approved 4/19/06*

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### **GUIDELINES FOR THE USE OF CHLORAL HYDRATE, CHLORALOSE OR URETHANE IN RODENTS**

Chloral hydrate, alpha-chloralose and urethane are sometimes used in laboratory animals to produce light anesthesia or narcosis for prolonged, experimental procedures. The intravenous route is most commonly used and recovery time is very prolonged. Urethane when used in combination with chloralose produces a deeper degree of analgesia and dampens the spontaneous muscle activity seen with chloralose alone. The primary advantage of these drugs is the minimal cardiopulmonary depression at the normal doses and the long time course of action.

The disadvantages are:

- 1) Chloral hydrate and chloralose are very irritating to the GI tract and cause adynamic ileus when given IP in the rat. Therefore, IV use is the only recommended administration route for these drugs in rodents and their use is recommended only for non-survival procedures.
- 2) Urethane can be mutagenic and carcinogenic, and its use is strongly discouraged unless strict precautions are taken to protect personnel. Its use is limited to non-survival procedures. Urethane must be listed as a biohazard that will be used in animals on the protocol and thus, the PI must obtain approval from the Biohazards Committee.

The PI should consult with the Veterinary staff to develop proper dosing schedules for these drugs prior to including them in a protocol submitted for IACUC review.