Enhancement of Animal Welfare Award Guidelines

This award is designed to promote the scientifically justifiable reduction, refinement, and/or replacement of animals in toxicological science. Reduction is the development of scientifically justifiable techniques to obtain the same quality of information using fewer experimental animals. A refinement is an alteration in procedure that leads to a decrease in the incidence and/or severity of stress and discomfort to experimental animals. Replacement is the introduction of new methods that do not require the direct use of animals in experimentation, either by conducting experiments using tissues derived from animals or by other means.

Examples of activities that would be considered worthy of consideration for this award include, but are not limited to:

1. Development and promotion of less invasive or less stressful veterinary procedures.
   - refinement of a surgical process
   - development of a noninvasive monitoring method

2. Development and promotion of methods to maximize the amount of information obtained from animal experimentation and/or minimize the number of animals required to obtain scientifically valid data.
   - development and promotion of experimental designs and statistical methods that maximize data collection.
   - development and promotion of experimental designs that decrease the number of animals required to evaluate a toxicological endpoint

3. Development and promotion of methods designed to replace the use of vertebrate species.
   - methods developed using invertebrates (such as insects), or bacteria to replace traditional methods using vertebrates
   - development and validation of an alternative method (e.g., using tissue culture or computer simulations) to replace a traditional (established) method using vertebrates