these procedures should be considered as ancillary to the available mammalian tests. The mammalian tests which should be considered as the basis for evaluating potentially mutagenic agents are the host-mediated assay, cytogenetic studies, and the dominant-lethal test. These procedures are as relevant to man as any other animal procedure presently used in the field of toxicology. They are also practical. The dominant lethal test can be concluded in less than 3 months, whereas cytogenetic studies and the host-mediated assay can be carried out in a few weeks. The cost of these tests is considerably less than that of many of the procedures currently used in chronic toxicity testing. It is anticipated that a testing protocol, relying on both the outlined mammalian tests, and the ancillary procedures, should detect the majority of mutagenic chemicals.

Since the mammalian procedures presently recommended are of comparatively recent origin, continued improvements in these techniques can be anticipated. Most important is the need for inexpensive and sensitive tests that can detect point mutations in mammals. Particularly promising in this connection is the development of systems in mice that combine genetically marked chromosomes with crossover-suppressing inversions, which can be used to detect recessive lethal mutations.