

Name: \_\_\_\_\_

Dr. Reichler's Bio 301M Spring 2009 Quiz 4/6

- 1) What is ironic about the ethics of dealing with research mice versus pest mice?
- 2) Under what conditions can the Institutional Animal Care and Use Committee (IACUC) stop someone's research?
- 3) Does testing a chemical on animals mean that it is safe for people?
- 4) What are one similarity and one difference between artificial selection and genetic engineering?
- 5) Is the most common genetically modified crop used in the U.S. likely to lead to less chemicals being used in agriculture?
- 6) What is different about the unintentional spreading of agricultural chemicals compared to genetically modified plants?
- 7) What ethical and/or legal considerations might apply when patenting the use of a plant, or part of a plant?

Answers:

- 1) *Pests can be killed in any manner, research mice must be treated humanely.*
- 2) *If the animals are being mistreated or not housed properly. If the researchers are using unapproved techniques. If the research is redundant to already completed studies.*
- 3) *No. The amount of a chemical that is dangerous in different species can vary widely.*
- 4) *Similarity- Involve human chosen traits. Can be used to increase yield/efficiency of agriculture. Difference- Artificial selection is by breeding while genetic engineering is via movement of DNA. Artificial selection has been practiced for ~10,000 years while genetic engineering is recent.*
- 5) *No, herbicide resistant plants mean the farmers can apply more herbicides not less.*
- 6) *Chemicals are only spread by human use, genetically modified plant can be spread by their own reproduction.*
- 7) *Any of- Where did the information come from? Will this benefit the people who provided information? Is this already being used?*