Bioethics discussion

A. Objectives

Students will

1. Gain an overview of bioethical issues related to molecular biology;
2. Analyze the social, ethical, legal, psychological and philosophical problems that may arise as a result of molecular biology research;
3. Examine and discuss a bioethical issue from the perspective of an involved stakeholder;
4. Apply personal values and beliefs to a bioethical dilemma

B. Before coming to lab

1. Choose an article (4 pages minimum) about a bioethical topic of interest to you. To find an article, you may check out one of the links below. DO NOT choose an article by a newspaper or magazine.
   a) President's Council on Bioethics @ http://www.bioethics.gov/. Click on a topic and then go to Background materials
   b) Council for Responsible Genetics @ http://www.gene-watch.org/
   c) Center for Bioethics and Human Dignity (Christian) @ http://www.cbhd.org
   d) The American Journal of Bioethics @ http://bioethics.net
   e) Nuffield Council on Bioethics @ http://www.nuffieldbioethics.org/
   e) Infotrac @ http://infotrac.galegroup.com/itweb/ccsf_main. Do a search for "bioethics", or limit it to the topic of your choice by searching for "bioethics AND topic".

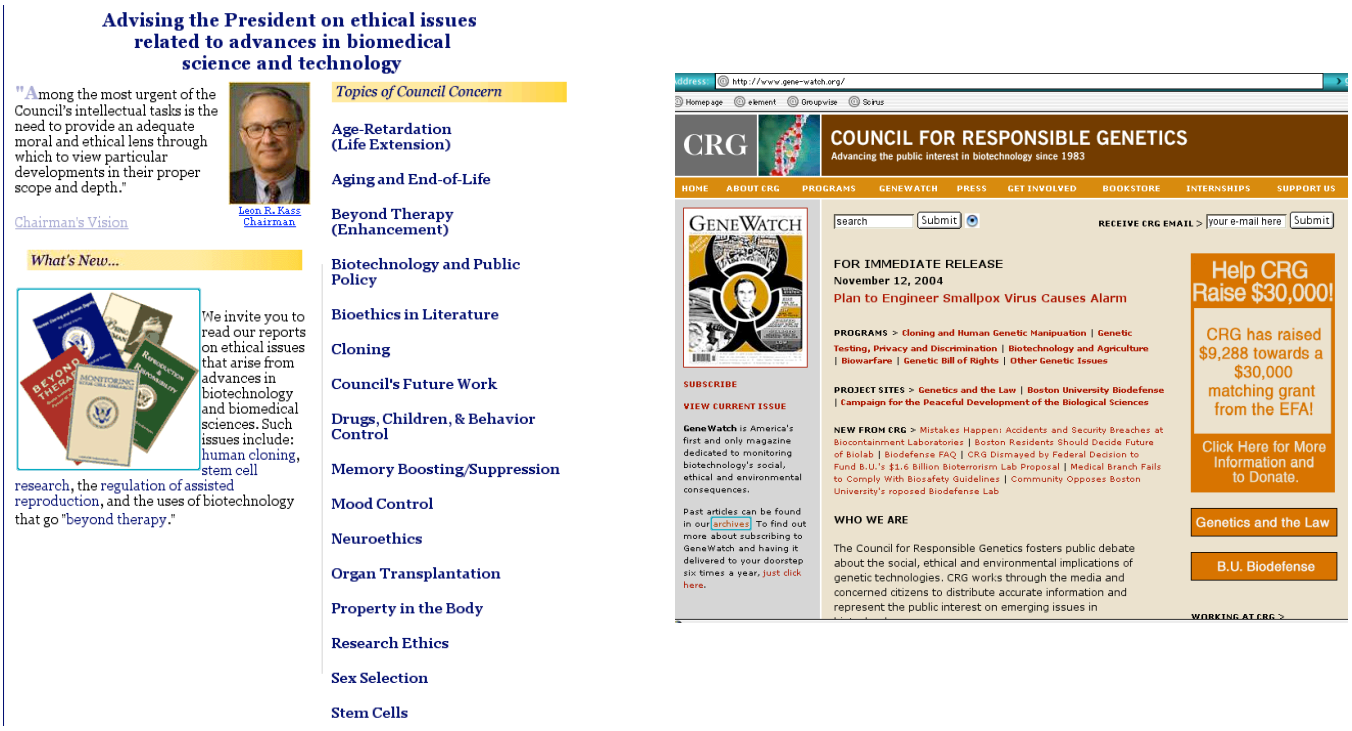

Figure 1: Screenshot of bioethics webpages

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a) Read the article carefully several times. Then write a summary of the article. If you are not sure how to write a formal summary, please consult Appendix H in this lab manual. The purpose of this is to help you understand as fully as possible the details of the

author's arguments. This should help you recall the article in some detail several weeks later and will be the base for sharing your knowledge with your peers.

b) Write your own personal reflections on or reactions to the article. Analyze it, illustrate it through your own experience, refute it, get mad at it, question it, doubt it, go beyond it. We will grade this assignment based on evidence of serious effort and engaged thought. You'll have to write at least one page here. Bring your Summary/Response to class the day of the bioethics discussion. Late assignments will not be accepted.
c) On a piece of paper, write one quote related to bioethics (it can be from the article or any other source) that shocked, surprised, amazed or otherwise interested you. Bring this quote to class.

C. During lab

To be announced.

D. Background

Introduction to Bioethics

(by Levine, K, T. Martin and S. Niemann, Northern California Biotechnology Center)

Many of the technological advances made in the biological and medical sciences have greatly influenced "or have potential to influence" how we live and the kinds of choices we make. In medicine, for example, mechanical ventilation, hemodialysis, organ transplantation, and more recently testing for genetic disease, have raised a number of profoundly difficult questions. Under what circumstances, if any, can life-sustaining technologies be removed? Who should benefit from these technologies when they are limited by cost or demand? Because tests are now available for a number of genetic disorders, should they be widely used?

Questions of this sort are particularly difficult to answer because they force us to examine the principles and values that guide our lives and our society. In addition, these questions challenge us to justify the values and principles we hold in light of new and changing circumstances. Since the 1960s a discipline has developed which attempts to understand and examine the moral questions associated with the biological sciences and health care in general. This discipline, called biomedical ethics or bioethics, has developed in large part as a consequence of the advances in medical science and technology, as well as the unique moral problems that have resulted from these recent advances.

In an effort to more fully understand what bioethics is, it may be instructive to distinguish between two terms that are commonly used interchangeably. "Morality" is used to refer to a set of social conventions about what is right and wrong human conduct. Thus, morality usually refers to practices, actions, or customs that are widely shared by a stable community or group. "Ethics" refers to the field or discipline that examines the reasoning and rationale behind such customs or practices. As a result, ethics is concerned not only with actions but also with theory and with the examination of the nature and function of morality. In addition, ethics takes on a formal or logical structure that attempts to achieve a perspective that is more universal and more detached or objective than the perspective that is found at the level of morals. Bioethics, therefore, is concerned with the scholarly examination and study of the legitimacy and appropriateness of certain actions or forms of conduct that are unique to the biomedical sciences.

Bioethics uses ethical principles, theories, and paradigm cases of appropriate behavior in developing guides to action within the realms of the biological sciences and medicine. As these fields change and challenge our commonly held conceptions of what should or should not be

done in meeting society's needs, bioethics seeks to provide a structure for examining and evaluating our moral judgments in light of these challenging new situations.

Why should bioethics be studied as a unique discipline? In his Morality and the Good Life, Solomon outlines several reasons why ethics should be studied (Solomon 1992). Following this example, there are at least four good reasons for studying bioethics:

Technological advances have fundamentally changed the choices society must make. Since these decisions may impact a great number of people, we should be prepared to justify and defend the choices we make. Bioethics provides us with the means by which we can come to better decisions and to justify those decisions.

The social conventions about what is right or wrong human conduct are continually changing. Not long ago, for example, medicine was very paternalistic. Patients rarely questioned the judgment of their physicians and did not participate in the medical decision making process. Often physicians made decisions for patients without seeking input from the patient about his or her own preferences. Thus, practices that were widely accepted years ago are seen as morally inappropriate today. Bioethics allows us to understand the changes that have taken place and to examine the stable values that underlie these changes.

Many different values, rules, and cultural traditions exist within our society (ethical pluralism). Bioethics attempts to understand the nature of these differences and to provide a forum where different moral judgments can be evaluated.

Sometimes ethical values and principles conflict. For example, an individual's right of privacy may conflict with another individual's right to be informed. When confronted with such conflicts a reevaluation of the priority of values and principles must occur. Bioethics provides a means by which these values and principles can be balanced against one another.

Reference:
Solomon RC. Morality and the Good Life: An Introduction to Ethics Through Classical Sources. New York, NY: McGraw-Hill, Inc., 1992.

Some milestones in the history of bioethics in the US

1941: Roosevelt creates Office of Scientific Research and Development

1960: Invention of dialysis machines

1966: Henry Beecher's article Ethics and Clinical Research is published

1966: FDA issues Statement on Policy Concerning Consent for the Use of Investigational New Drugs on Humans

1968: First heart transplantation

1969-1980: Cases of Baby Doe

1970: Bioethics becomes an academic discipline

1972: Tuskegee Study of Untreated Syphilis in the Negro Male becomes public

1973 American Hospital Association's Patient's Bill of Right

- the right to privacy
- the right to receive information about their medical treatment
- the right to consent or decline to participate in research studies

1973: Roe versus Wade

1976: Case of Karen Ann Quinlan->Court advised the establishment of ethics committees in hospitals

1978 - President's Commission established as a result of all the scandals

1990 - Nancy Cruzan 25 in coma fed by tube, parents were denied removal of tube

1991 - Patient self-determination Act was passed as a consequence:

- right to refuse treatment
- ask if they want to prepare an advance directive, a living will or durable power of attorney for health care (DPAHC). Record their wishes about do-not-resuscitate (DNR) and resuscitation
- withdrawing life-sustaining treatment

1995: Death with dignity act was passed in Oregon

1999: Investigation of gene therapy death of Jesse Gelsinger
2000: International Center for Tropical Agriculture (CIAT) vs. US Patent and Trademark Office: the case of the yellow beans

2001: Partial victory for India and Pakistan in basmati rice case

2004: *Monsanto Canada, Inc. v. Schmeiser*

E. Review questions

1. Define bioethics.

2. Define plagiarism

3. List eight issues of bioethical concern.

4. Be able to come up with a scenario for the issues discussed in class. Have one argument supporting each side.

5. What are the “Baby Doe” cases about?

6. Give an example of a study that showed the need for a Policy Concerning Consent for the Use of Investigational New Drugs on Humans.

7. What is the moral concern in the Tuskegee study?

8. What was Roe vs. Wade about?

9. What does the Death with Dignity act allow?

10. What is the issue in the yellow beans and basmati rice cases?

11. Define biopiracy.

12. What was the issue in *Monsanto Canada, Inc. v. Schmeiser*