Promoting and Enhancing Research in the Life Sciences:

The Role of a Code of Conduct Phillip A. Sharp MIT Institute Professor

Biomedical Research Community has a "Culture of Responsibility"

- Continued advancement of biomedical research depends upon public support
- 2. Continued development of biomedical research is critical for the health and security of the country
- Biomedical research must be done in a safe and transparent fashion with responsible use of human subjects and animals

Biomedical Research Community has a "Culture of Responsibility"

- 1. Commitment to advancement of society: healthcare and knowledge
- 2. Commitment to education
- 3. Validity of scientific data
- 4. Openness to questions and exchange
- 5. Science is an international activity



Francis Crick and James Watson

(Molecular Genetics, G.S. Stent, 1971)

The Recombinant DNA Guidelines

- 1. Early 1970s, new technology developed: sequence, synthesis, and recombination of DNA
- 2. Concerns about possible dangers: public and some scientists -1973
- 3. Scientific community proposes a moratorium until conference 1974
- Asilomar Conference recommends NIH guidelines -1975
- 5. NIH guidelines issued June 23, 1976
- 6. Revised guidelines January 2, 1979

National Research Council National Research Strengther National Research Strengther Parts Asilomar Conference, 1975

Impact of Guidelines and Process of Their Development

- 1. Led by scientific community including funding agencies
- 2. International at the onset and in further development
- 3. Process was public
- Compliance was almost universal: public support of science and community standards
- 5. Mechanism for change with progress of science

Teaching Codes of Conduct at MIT

- All second year graduate students in Department of Biology
- Also MIT-wide course on similar topics

Subjects Taught in Courses on "Responsible Conduct in Research"

- 1. Scientific misconduct, record keeping, reporting results, and data selection
- 2. Mentoring, authorship, peer review, and confidential information
- 3. Intellectual property, patents, trade secrets, and responsibility to the public
- 4. Use of humans in biomedical experimentation
- 5. Use of animals in biomedical experimentation

Support Activities and Organization for Biomedical Research: MIT Office of Vice-President for Research

- 1. Committee on the Use of Humans as Experimental Subjects (Institutional Review Board IRB)
- 2. The Committee on Animal Use
- 3. Academic Misconduct Policy
- 4. Office of Intellectual Property Council
- 5. Office of Sponsored Programs Conflicts of Interest
- 6. Environmental Programs Office
 - a. Committee on Assessment of Biohazards (Institute Biosafety Committee equivalent)
 - b. Select Agent Control
 - c. Chemical, Radiation, and Lab Safety

Thank you for the opportunity to present this lecture