

SUMMARY OF ISSUES RAISED

The following is intended to give a brief overview of the breadth of issues which arose during the course of the workshop. This list is best considered as a starting point in two senses. First, the list of issues is undoubtedly incomplete and hence forms a starting point for a general discussion of ethical issues in physics. Second, the statement of each of the issues is necessarily brief, and hence forms the starting point for a more detailed and precise identification of that issue and for an analysis of its ramifications.

I. Funding

- A. What constitutes effective use of resources?
- B. Has society gotten its money's worth from publicly funded research?
- C. To what extent are projects and their potential applications oversold?
- D. When should lobbying for a project be considered unethical?
- E. Do we no longer have the luxury of funding research for its own sake?
- F. If research funds are being poorly allocated, is it ethical to use deception in redirecting them?
- G. Is there a fundamental and unresolvable conflict between the dual sponsor-vendor role of the federal government?
- H. Can independent peer review exist for large scale projects?
- I. Does peer review work?
- J. To what extent does accepting funding from an organization prejudice the direction of the research?
- K. To what extent are projects dragged out in order to continue receiving funding?
- L. Is there a conflict between the funding of large scale projects and small projects, and if so what is a fair distribution of resources between the two?

II. Politics and Science

- A. When does technical advice become political advice?
- B. How often do physicists compromise their beliefs to get or keep a job?
- C. Is it ethical to understate troubling scientific results to the public in order to allow them time to adjust?
- D. Are there any options to accepting political encroachments into technical advice?
- E. Should personal or professional loyalty ever outweigh the need for whistle-blowing?
- F. When should technical advice be peer reviewed first?
- G. Who is qualified to be an expert witness?
- H. What protections can be offered to whistle-blowers?
- I. What protections can be offered to victims of spurious whistle-blowing?

III. Merit and Value Judgments

- A. What factors are appropriate to consider in making merit and value judgments?
- B. Is peer review an ethical requirement?
- C. Is the single-blind review process, common to most physics journals, preferable to double-blind or to a system in which all parties are identified?
- D. How do we deal with classified research when making merit and value judgments in an unclassified environment?
- E. How are varying levels of scientific contribution to a particular line of research appropriately acknowledged?

IV. Laboratory Ethics

- A. What constitutes fraud?

- B. Should carelessness ever be considered unethical?
- C. Should openness be considered an ethical requirement in academia?
- D. When an issue of lab safety arises, should the senior member in a research group take responsibility for the most dangerous job?

V. Other

- A. To what extent is one responsible for the consequences of one's research?
- B. Do physicists have a responsibility to "science" or to the "scientific community"?
- C. Are there any truly universal ethical principles in science?
- D. When is it unethical to publish in the popular press first?
- E. Should the public police science?
- F. Should scientists be responsible for policing themselves?
- G. What responsibilities do we have when as a nation we enter into international scientific agreements?
- H. What constitutes exploitation in a mentor/student relationship?
- I. Have many physics students been unfairly misled about their prospects for securing employment in the field?

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