APPENDIX D DRAFT FEDERAL REGISTER NOTICE

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TRAINING PH.D.S: FACULTY VIEWS ON THEIR ROLE AND 'THEIR INSTITUTION'S ROLE TO PROMOTE THE DEVELOPMENT OF RESPONSIBLE RESEARCHERS

SUMMARY

There is growing concern and debate in the research community about research misconduct, questionable research practices, and lapses in ethical research standards. Preventing research misconduct and abuse is of paramount importance. The Institute of Medicine (IOM) has issued two reports in the last 10 years addressing this concern and clearly states that mentoring is a key factor in promoting the development of responsible researchers.^{1,2} However, little is actually known about the qualities and activities of effective mentors.

We need to have a common understanding of what mentors and advisors specifically do to train Ph.D.s to become successful researchers. The literature indicates that students perceive mentoring as highly critical to completing their graduate programs (Hartnett 1976; Blackwell 1987; Arce and Manning 1984; Nettles and Millett 2006). Little is known, however, about how faculty define the role of advisor and mentor and how faculty members perform these roles in their daily work life. Furthermore, research on the institution's role in promoting mentoring and advising is lacking.

¹ Responsible Science: Ensuring the Integrity of the Research Process, National Academy Press, Volume 1, Washington DC, 1992.

² Integrity in Scientific Research: Creating and Environment that Promotes Responsible Research, National Academies Press, 2002.

The Office of Research Integrity (ORI), recognizing the importance of mentoring and the gaps in knowledge about mentoring, is conducting a descriptive study to examine faculty and institutional roles in mentoring. This effort is consistent with the directive to ORI to "focus more on preventing misconduct and promoting research integrity" (Federal Register: May 12, 2000, Volume 65, Number 93).

• The knowledge gained from a better understanding of current mentoring practices and policies can help the development and promotion of best practices, such as guidelines for faculty activities and responsibilities in the development of responsible researchers. In addition, we will be able to describe how involved institutions are in defining the responsibilities of the person who is responsible for the training and education of the Ph.D. candidate.

SUPPLEMENTARY INFORMATION

I. Background

• To gather information on these issues, ORI plans to conduct a self-administered web survey of faculty members who have supervised doctoral students in the last five years.

II. Review Focus

• The Office of Research Integrity is particularly interested in comments that: (1) evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (2) evaluate the accuracy of the burden of the agency's estimate of the proposed collection of information, including the validity of the methodology and assumptions used; (3) enhance the quality, utility, and clarity of the information to be

collected; and (4) minimize the burden of the collection of information on those who are to respond, including through the use of appropriate data collection techniques.

III. Current Actions

• The data will come from a random selection of 10000 investigators drawn from the 2005 and 2006 National Institutes of Health or National Science Foundation grant recipients who have supervised doctoral students in the last five years and are faculty in two types of institutions: (1) medical schools (within universities or stand alone) and (2) all other universities.

TABLE 1

RESPONDENTS AND BURDEN ESTIMATES FOR THE TRAINING PH.D.S SURVEY

Instrument	Respondents*	Response Time	Total Time
Faculty Survey	4,620 faculty who oversee doctoral students*	20/60 minutes	1,540 hours

^{*} Of the original 10,000 sample members, 66 percent are expected to be eligible and among those who are eligible (6,600), 70 percent are expected to participate for a total of 4,620 respondents.

• Comments submitted in response to this comment request will be summarized and/or included in the request for Office and Management and Budget approval of the information request; they will also become a matter of public record.