



National Council on Radiation Protection and Measurements

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July 3, 1996

U.S. Nuclear Regulatory Commission
Division of Contracts and Property Management
Washington, D.C. 20555-0001

Reference: Grant No. NRC 04 95 086

Dear Sir:

The purpose of this letter is to report on the progress of the work being carried out by Scientific Committee 1-6 of the National Council on Radiation Protection and Measurements on "Linearity of Dose Response" under the above referenced grant. The period covered by this report is April 1, 1996 through June 30, 1996.

If there are questions regarding this progress report please call William M. Beckner at 301/657-2652.

Sincerely,

W. Roger Ney
Executive Director

WMB/hkcs

cc: C.B. Meinhold
Mary Thomas
Alan Roecklein
NRC Grant File

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Quarterly Progress Report

NRC Grant 04 95 086

Period covered by this report: April 1, 1996 through June 30, 1996

Activity supported: Scientific Committee 1-6 on Linearity of Dose Response

Total funding: FY 1996 \$75,000

Program outlays to March 31, 1996: \$28,694.78

Funds remaining as of April 1, 1996: \$46,305.22

Performance period: October 1, 1995 to September 30, 1996. An additional \$75,000 is expected to be made available for FY 1997 and for FY 1998, respectively.

Narrative:

Scientific Committee 1-6 conducted its second meeting on May 30, 1996. All members and the advisor were in attendance except for R.B. Painter who was unable to attend due to family illness. Prior to this meeting, detailed outlines were circulated in preparation for the meeting. These outlines were discussed and critiqued at the May meeting.

The general draft outline at this time is as follows:

| Section | Drafter | Comment |
|---|----------------------|---------------------|
| 1. Introduction | Upton | To be written later |
| 2. DNA Repair and Processing after Low Doses and Low Dose Rates of Ionizing Radiation | Painter | Outline attached |
| 3. Mutagenic Effects | Liber Kronenberg | Outline attached |
| 4. Chromosome Aberrations | Preston Adelstein | Outline attached |

| | | |
|--|------------------|---------------------|
| 5. Oncogenic Transformation <i>In Vitro</i> | Hall Brenner | Outline attached |
| 6. Carcinogenic Effects on Laboratory Animals | Clifton Upton | Outline attached |
| 7. Carcinogenic Effects on Human Populations | Shore Finch | Outline attached |
| 8. Interpretation of Adaptive Responses | Committee | To be drafted later |
| 9. Conclusions | Committee | To be drafted later |

The NCRP in conjunction with the work of Scientific Committee 1-6 has forwarded a note entitled "NCRP Call for Scientific Data" to several scientific journals asking that it be published. This note and the list of journals this note was sent to is attached to this quarterly report.

At the next meeting of Scientific Committee 1-6, which is scheduled for November 1996, the Committee expects to address the question of conducting a scientific hearing regarding the shape of the dose response curve at low doses. The Committee membership have been asked by the chairman to provide names of individuals from whom varying views regarding the shape of the dose response curve, or lack there of, would be expected and who would be willing to support their views with references from the peer reviewed scientific literature. If the Committee decides to pursue this alternative, means of publishing these papers outside of the Committee's report would most likely be sought.

The membership of Scientific Committee 1-6 is as follows:

| | |
|-----------------------|---------------------------|
| Chairman: Upton, A.C. | Liber, H. |
| Adelstein, S.J. | Painter, R.B. |
| Brenner, D. | Preston, R.J. |
| Clifton, K.H. | Shore, R. |
| Finch, S.C. | Advisor: Kronenberg, A. |
| Hall, E.J. | NCRP Staff: Beckner, W.M. |