MEMO FROM J. LEDERBERG **GENETICS DEPARTMENT** STANFORD UNIVERSITY STANFORD, CALIFORNIA TO: mm. Carl Lloyd Harbor Study

RC Group

TX

AUG 25 1970

If there is any unrebutted suspicion that nuclear energy development on L.I. would lead to the exposure of a large population to as much as 10% of the FRC guidelines I would begin to share your alarm. What is your worst case estimate of the rem-equivalent exposure?

My"strong statement" was an attempt to be objective, which is not easy in this field. It does reduce, at equilibrium (which would require at least 1) generations of exposure) to \$10B/200 M pop./100 mrads/year or a per capita health cost of

Diagnostic- #500 persod (germline exposure) Medical X-ray, as now used, just about survives a cost-benefit analysis on this taxis basis.

The calculation assumes that our total true health bill is about 1/4 our GNP, which I believe but some would writicize; and that mutations account for 1/2 our health problem. which is reasonable. I would guess that the correct value that I give at \$500 lies in the range of \$100 to \$1000. You might want to expand on these numbers for a costbenefit analysis of nuclear power; keeping in mind the costs of alternatives.

I do not suggest that the burden of proof be shifted from its proper seat -- the sponsors of these projects.