

7/68 not
used.

Dear Senator Ribicoff:

A few weeks ago, I had the privilege of testifying before the Senate Committee on Government Operations. You ~~was~~ were in the chair. The discussion between Prof. Arthur Kornberg and yourself ^{that preceded my own testimony} was one of the most challenging debates I have ever heard on the social responsibilities of science.

You pointed out that statesmen needed guidance from scientists about the potential hazards

that might be latent in scientific discovery. You

asked us as biologists whether our consciences

might be abandoned, as many physicists have

the unblocking of
been with their thoughts about nuclear armaments.

What could we tell you now that could help the

Carpers about a new course in the extension
and use of scientific knowledge.

The issues you raised have been lodged in my
thinking for a long time, but your challenge
provokes me to try to ^{identify} ~~find~~ the most ~~pointed~~ acute
dangers, that ~~need~~ most urgently need public
ventilation. I can indeed point to many areas
where insufficient knowledge hurls us in a dark
age of needless human misery. But any listing of these

would surely expose the quality of our economy, that

there are ~~just~~ ^{still some} few people who know ^{just} enough to

perceive that we can do better, and have a glimpse

of how to achieve it. ~~Even so, there are~~ ~~Over millions~~

Perhaps our ~~most~~ efforts at learning what we need to know for

~~health,~~

the conquest of disease, aging, ~~and~~ death, and

ignorance will never be sufficient. Certainly we

can never conquer our cancerous that we are

doing enough.

However, I know that you have been the chief

executive officer of the Department of Health, Education,

and Welfare, and that no one understands

better than you do the gap between the ideal

and the possible.

You were probably asking for advice on more

positive regards, the foreseeable consequences of

technical work that is in being. do these scientific

that should be pointed out to you as
work, ~~which is~~ probably involuntarily ~~made~~

How many ways of measuring
anyhow! (clearly) go to the
incubation way - but one or
recognition.

But is a side - some to come!
but does an outbreak make
have contribute to political
stability?

~~scale?~~ fraught with large scale perils to humanity?

There is a frightful answer to your question, ~~and~~

~~its~~ Its name is Biological Warfare.

Yes, we ~~all~~ know that war is already the chief

peril to human survival. Nuclear weapons ~~could already~~ ^{can now}

make human life untenable on earth. What could

possibly be worse than the power we already have

to stop ~~the~~ human progress?

~~Contagion is what is worse.~~

Research on BW ≠

doing BW.

My criticism is directed at what

we are not doing, out of volume with what we are.

That argument has its merits, but it would stifle

whatever.

discussion of any other problems, ~~and~~ ~~any~~ ~~of~~ all of our

hopes and ^{shakely} ~~beliefs~~ are predicated on the assumption that

there will be a post-nuclear ~~age~~ era.

There are two special hazards of biological

and their ~~beliefs~~ ~~systems~~ ~~enough~~

Nuclear arms ~~still~~ ~~require~~ ~~a~~ ~~substantial~~ ~~of~~ ~~weapons~~. They add to ~~political~~ ~~instability~~ ~~instability~~

to limit them to ^{safe,} ~~that~~ only a few countries ~~have~~

~~been able to indulge in them so far.~~ ~~and~~

~~political~~ ~~initiatives~~ to control ^{further} nuclear proliferation have

made substantial progress, even if ~~just~~ 20 years overdue. (Secrets, will you blame scientists for that delay? Did they keep any secrets from the ~~public~~ public on the hazards of nuclear proliferation?)

By contrast, once biological weapons reach substantial development, a few million dollars worth of industrial plant can produce enough to infect the earth. The delivery systems for BW are still problematical, and it is hard to see now

what important use ^{is} ~~they~~ would be to a country already
possessed of ~~the~~ the unpredictable nuclear arms. In
effect, then, the U.S. (among other countries) is doing
the pioneering research in BW that will eventually be
exploited by other smaller countries, against one another, or
against the US itself.

A much more

do not dwell on
geopolitical niceties

Hazards of
contagion

As a scientist, I can seek the truth, and I can

try to disseminate it. You have the power of political

action. What more can I tell you?