

SCIENCE

FRIDAY, NOVEMBER 19, 1915

BIOLOGICAL RESEARCH; THE VALUE AND
THE DANGER¹

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MSS. intended for publication and books, etc., intended for
review should be sent to Professor J. McKeen Cattell, Garrison-
on-Hudson, N. Y.

I SEIZE with avidity the opportunity fur-
nished me as your retiring president to dis-
cuss a subject which I am anxious should
have your earnest consideration. I am
aware that the title which I have announced
is ambiguous, but I think that before I am
through there will be no lack of under-
standing as to what I have in mind. *Bio-
logical research* includes many things. I
mean to limit myself to those phases of it
which require the experimental use of liv-
ing animals. And I grasp this opportunity
because I feel that our colleagues in other
fields of scientific effort do not always fully
perceive the value of the knowledge at-
tained by this means; and that they do not
at all appreciate the danger that freedom
of research in these lines may be seriously
hampered by hostile legislation or mis-
directed public opinion.

You who are engaged in very various
lines of research will appreciate the fact
that the immediate application of a dis-
covery is no fair measure of its value; the
ultimate results of the knowledge obtained
may become extremely far-reaching. It is
in the creation of a background of knowl-
edge and experience that the greatest good
is to be obtained. Often we point to certain
noteworthy achievements and at the same
time fail to perceive that they have become
possible only through the accumulation of
a multitude of small details, the results at-
tained by the humdrum plodding of patient
mediocrity.

The creative imagination of genius is

¹ President's address before the California Chap-
ter of the Sigma Xi, April 28, 1915.