tional Research Council laboratories, by R. L. Cunningham and R. B. Harvey of McGill University. Four fellowships of the value of 750 dollars each, and thirty-seven studentships of the value of 650 dollars each, will be held at Canadian universities directly under the auspices of the National Research Council. With the cooperation of Canadian universities, the National Research Council is also awarding twenty-three bursaries of 250 dollars each. These bursaries are available to students of high attainments who have just graduated and are ready to take their preliminary training in research.

AT the Toronto meeting of the American Society of Biological Chemists a committee was appointed to consider the relationship of chemists to the work in clinical laboratories. The committee, consisting of Dr. William C. Rose, president elect; Dr. D. D. Van Slyke and Dr. Vincent du Vigneaud, chairman, was authorized to act for the society and has submitted the following report: The American Society of Biological Chemists wishes to express its full agreement with the policy set forth in the resolution adopted by the American Chemical Society with regard to clinical laboratories: "In order that the public may be protected the states should license individuals engaged in determining data of a chemical nature bearing upon the public health or upon which the diagnosis and treatment of disease may be based, and that the states also should approve laboratories engaged in such work and their directors, solely on the basis of adequacy and competence and without assuming that any particular degree such as doctor of medicine, doctor of philosophy or doctor of science, is in itself a guarantee of the qualifications requisite to ensure the accuracy and experience necessary to the public welfare."

DISCUSSION

BACTERICIDAL FILTRATES FROM A MOLD CULTURE*

ALTHOUGH there is a large literature on bacterial antagonism, going back to the work of Metchnikoff and culminating in the striking results of Dubos at the Rockefeller Institute, there is, to my knowledge, only one recorded case of a bactericidal product formed from a mold. In 1929 Fleming[1]—confirmed later by Reid[2]—found that filtrates from a particular *Penicillium* displayed marked inhibitory effect on the growth of many gram-positive and some gram-negative organisms, but without bactericidal effect. Gratia and Dath[3] reported a *Streptothrix* whose filtrates were highly bactericidal to a variety of bacteria.

In this laboratory a mold—tentatively identified by Dr. Charles Thom of Washington as *Aspergillus flavus*—has been found which grows readily in liquid media yielding filtrates that are definitely bactericidal for some gram-negative as well as gram-positive bacteria. A series of other *Aspergilli*—all kindly supplied by Dr. Thom—has been examined in this way, with widely varying results. Another strain of *Aspergillus flavus* was found totally inactive, while several representatives of the oryzae-flavus group, as well as a strain of *Aspergillus parasiticus,* have shown activity in one degree or another; but none has been as active as the original organism. The results with any mold are fundamentally dependent upon the medium. Various media and conditions of growth are being studied, and at the time of writing a method has been found to concentrate the active material, although nothing is yet known as to its nature. The results so far noted stem from an inherent property of the mold as against properties developed by adaptation in the sense of Dubos and of Waksman and collaborators.[4] However, attempts are being made to grow the mold on bacterial cultures as sources of nutriment with the hope of accentuating the activity already existing.

A detailed report of this work will be published as results warrant. In view of the growing interest and more numerous investigations in this field of microbial antagonism it has seemed appropriate to publish this brief record at this time.

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1 *British Jour. Exp. Path.,* 10: 226, 1929.
2 *Jour. Bacteriology,* 29: 215, 1935.
3 *Compt. Rend. Soc. Biol.,* 92: 461, 1925.

ANTLER-EATING BY RODENTS

CARLSON'S query[1] as to the presence of an "urge" or appetite in the gray squirrel for calcium and phosphorus during pregnancy and lactation as evidenced by the eating of bone brings up a related question which may have some bearing on the case. This is a question of what becomes of deer antlers after they are shed.

It might be supposed that if the antlers persisted on the ground for several years after shedding they would become quite common on certain portions of our western range where it is heavily stocked with deer. It has been my observation through many years afield on such ranges that the antlers are exceedingly scarce. I believe this has been corroborated by many other observers. If it is actually a fact, the obvious

4 National Academy of Sciences, Washington, April, 1940. A report of this work was seen in the *New York Times* of April 24, 1940.

1 A. J. Carlson, SCIENCE, 91: 573, June 14, 1940.