of malaria before the mosquito season; relations between malaria and domestic animals; the water plants which promote or check proliferation of mosquitoes; other larvacidal measures and means to enhance immunity and protect workers in the fields.

THE University of Chicago board of trustees announces that the Metropolitan Life Insurance Company has again renewed its grant of $3,000 to the department of hygiene and bacteriology for special investigations in respiratory diseases.

UNIVERSITY AND EDUCATIONAL NOTES

THE University of Minnesota has received a gift of $250,000 with which to erect and equip a cancer hospital to be a part of the University of Minnesota General Hospital. The money was donated by the Citizens Aid Society of Minneapolis, established in 1916 by the late George H. Christian.

EIGHT members of the faculty of the Women's Medical College of Philadelphia presented their resignations to the board of incorporators of the institution on April 17 in protest against the dismissal of Dr. Alice W. Tallant, head of the obstetrics department. This made a total of fifteen resignations, including the entire surgical staff, for the same cause. Incompatibility was assigned as the reason for Dr. Tallant's dismissal.

THE resignation of Dr. John P. Sutherland as dean of the Boston University School of Medicine, after twenty-six years of service as the head of the school, has been accepted by the trustees, and Dr. Alexander S. Begg, formerly dean of the Harvard Graduate School of Medicine, now professor of anatomy at the school, has been appointed dean for the coming year.

AT Yale University Adolph Knopf, associate professor of physical geology and petrology, has been promoted to be professor; George E. Nichols, assistant professor of botany, to be associate professor; and Charlton D. Cooksey and Alan T. Waterman, instructors in physics, to be assistant professors.

DR. J. H. VAN VLECK, now at Harvard, and Dr. Gregory Breit, who this year is National Research Council fellow in physics, also at Harvard, have been appointed to assistant professorships at the University of Minnesota department of physics following the resignation of Professor W. F. G. Swann to go to the University of Chicago. Dr. Van Vleck, a son of Professor Van Vleck, of the University of Wisconsin, has worked on atomic structure. Last year Dr. Breit conducted research in physics at the University of Leyden.

MR. R. S. ADAMSON, lecturer in botany at Manchester, has been appointed to the Harry Bolus chair of botany in the University of Cape Town.

DISCUSSION AND CORRESPONDENCE

MARINE ZOOLOGICAL STATIONS

I AM sorry that my recent letter to SCIENCE[1] regarding work in marine zoology seems to have caused Dr. Fisher[2] uneasiness. Perhaps I can try here to indicate more clearly what I had in mind.

A number of the points raised in Dr. Fisher's comment were familiar to me, and do not cause me to change my original view. Perhaps the most important matter involves the proposition that one can not continuously pursue intellectual work in a warm climate, and that the "glamor" fades. My own belief, based upon a certain amount of direct observation, is this: that a person, biologist, who will loaf in (say) Bermuda, will probably loaf in any other place. The notion that all biologists not in the subtropics work continuously and at high intellectual pressure would certainly be grotesque! As Peterson remarks, in speaking of his bottom sampling operations, to carry on research it is necessary not only to have equipment and the opportunity for using it; it is necessary also to have ideas. So that if there were an inevitable incompatibility between warm weather and cerebration, for the majority of persons, it would surely be unfortunate. But aside from Beebe's pronounced expressions of opinion on this subject, I may point to the fact that Dr. Fisher's view, as he has stated it, does a quite unmerited injustice to workers at Manila, in Java, in

[1] SCIENCE, December 29, 1922, p. 751.
[2] *Ibid*, February 23, 1923, p. 233.

India, in some parts of South Africa, and in Hawaii, and in South Australia.

Apart from all this, the thing which I chiefly strove to emphasize is the fact that a marine laboratory can hardly hope to justify itself as an investment if it relies solely upon the sporadic visits of biologists recuperating from a siege of instructional duty. It seems to me that there is most urgent need for a station, suitably located, which may hope to do the sort of thing which Naples did and which Plymouth is now doing, and in an environment of the most advantageous character. Convenient accessibility is highly desirable. One can hardly speak of Pacific Coast laboratories as "accessible" for the majority of American biologists; it is cheaper, or as cheap, to go to the nearer parts of Europe.

But in my letter I spoke of "accessibility" in another sense, with reference to a varied fauna. I have in mind especially the conditions at Bermuda, but I doubt not that other locations equally favorable can be found. Within less than an hour's run in a small boat from the Bermuda laboratory and in most cases closer than this, one could reach exposed or sheltered shores of sandy, muddy, or rocky type, caves, mangrove creeks, lagoons, and the locations of four or more distinct types of coral associations, each with its characteristic fauna, and all of them free from pollution; and this at all periods of the year. I doubt very much if those who have not tasted the experience of continuous biological work (not merely collecting of specimens) under such conditions have a proper realization of its possibilities. The abundance of this fauna can be appreciated only by living with it. It seems to me stupid that the opportunity to further the advancement of biology in locations of this sort has not been seized.

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A PROGRAM OF OCEANIC INVESTIGATIONS

TO THE EDITOR OF SCIENCE: Like Dr. Fisher (SCIENCE, February 23, 1923, p. 233) I was much astonished at some of the assertions made by Dr. Crozier in SCIENCE for December 29, 1922. I can not hope to add to the admirable lucidity of Dr. Fisher's comment, but it does seem desirable to add special protest against Dr. Crozier's scornful dismissal of the idea of a "program" of oceanic investigation.

I have recently read Raphael Pumpelly's "Reminiscences" and I am now reading Jordan's "The Days of a Man." From these and other sources I get the overwhelming impression that when great problems of science have been successfully attacked by these men and their fellows there was in mind a definite program (or plan) of operations. As I understand it, the failure of the brilliant Rafinesque was primarily due to lack of plan.

The general difficulties of oceanic investigation seem to me to be somewhat similar to those of astronomical investigation. I can not imagine any one seriously suggesting that the Harvard, or the Yerkes, or the Lick, or the Mount Wilson Observatory should work without a program. Furthermore, what less than a program of some sort could justify the installation of a "stationary staff," or, indeed, make it possible to intelligently select such a staff?

Those of us who work day by day and year after year in the La Jolla laboratory are frequently and vividly impressed by the constant intercrossing of lines of influence between our respective fields and between indefinite numbers of minor points in each field. A major stimulus to continued investigation is the hope that we shall some time get enough accurate information to enable us to trace many of these lines of influence through the intricate web. This hope would be denied to us if we ignored the idea of a general program for all of our oceanic research.

Indeed, I know of nothing more satisfying to the scientific staff of the Scripps Institution than the fact that a program of some sort has been followed from the beginning and that a *permanent* program now seems to be definitely recognizable. All along one of the most prominent elements in our program has been the study of natural (in nature) activities of marine organisms as distinguished from (or at least compared with) circumscribed activities of such organisms in laboratories. Several years ago both Michael and Esterly showed through a series of statistical examinations of the marine population that laboratory deduc-