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UNIVERSITY OF HAWAII  
HONOLULU 14, HAWAII

OFFICE OF THE DEAN OF THE GRADUATE SCHOOL  
AND DIRECTOR OF RESEARCH

January 7, 1959

Dr. John Wolfe, Chief  
Environmental Sciences Branch  
Division of Biology & Medicine  
U.S. Atomic Energy Commission  
Washington, D. C.

Dear Dr. Wolfe:

I should like to outline for your information and records the status of the work on the named reference collections being assembled at EMBL, and to indicate the uses to be made of the laboratory during this year, insofar as I now have information.

Named Reference Collection

The following groups of organisms have been collected, identified, had ecological and life history ~~notes~~ recorded, and placed in appropriate containers on the shelves at EMBL:

Algae (by Dr. Yale Dawson)  
Terrestrial plants (by Dr. Harold St. John)  
Arthropods  
    Alpheidae (by Dr. A. H. Banner)  
    Stomatopoda (by Dr. Sidney Townsley)  
Holothurians (by Mrs. Charles Cutress)  
Anemones (by Mr. Charles Cutress)  
Corals (by Dr. John Wells)  
Cephalopods (by Dr. Sidney Townsley)  
Annelids (by Dr. Donald Reish)  
Foraminifera (by Dr. Henry Hirschfield)  
Fishes (by Dr. Donald Strasburg)

The following groups of organisms are being identified and properly prepared for the named reference collection at the present time:

Arthropods  
    Crustaceans [crabs and shrimps] (by Dr. John Garth)  
    Insects (by Dr. L. D. Tuthill)  
Echinoderms, except holothurians, (by Mr. Fred Ziesennehenne)  
Molluscs, except cephalopods, (by Miss Joan Demond)

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Much of the work on these latter groups is completed, but parts of the collections are not yet identified. They are being worked on during the spare time of the persons named.

Financially, I have obligated the sum of \$4,571 for the completion of the work now in progress. Our budget actually contains \$5,800 for these services to the period 30 June 1959. It is virtually certain that only a small fraction of this sum will actually be paid prior to that date.

The method by which we secure systematists for this job is to estimate the number of months of full-time work which would be required to complete the work, then send them to EMBL for collecting during which time they receive full-time pay at the modest rate of \$6,000 per year. Once they return to their own institutions they spend as much time as possible on the collection and I pay them a prorated amount based on hours worked. We have been exceedingly fortunate in securing the services of outstanding people, and our named collections at EMBL are extremely useful. I have had many occasions to use them myself, so I speak from first-hand acquaintance.

In some cases we could not get the systematists to go to EMBL themselves (either females or men without sufficient time to do so), so collections of these groups were made under my supervision by graduate assistants sent there during summers. No additional funds need to be set up under this aspect of the laboratory's development, as the most important groups are now either completed or will be with funds available.

#### Prospective 1959 Investigators at EMBL

1. Dr. Wilson Stone and two assistants will go to EMBL from mid-July to mid-August to continue their studies on genetic changes induced in fruit flies in the test area.

2. Dr. Max Doty and Mr. M. Oguri, working on AEC project AT(04-3)-15, "Algal Productivity of the Tropical Pacific as Determined by Isotope Tracer Techniques." Mr. Oguri plans to spend from 15 January to 15 February 1959, at EMBL, and several additional periods as yet undetermined.

3. Dr. A. H. Banner and Dr. P. Helfrich, working on AEC project AT(04-3)-235, "An Investigation of the Possible Effects of Ingestion of Radioactive Fish and the Nature and Biology of Toxins Found in Certain Fishes." Dr. Helfrich is now at EMBL collecting fish reputed to be poisonous and others for controls. He will also collect at Majuro Atoll using logistic support provided through the AEC Branch Manager. Several such trips will be made during the year, depending upon the needs of the program.

These two investigators and Dr. Paul Scheuer will also utilize EMBL facilities in pursuance of their research sponsored by the National Institutes of Health, project RG-5714, "The Nature and Biology of Toxins from Certain Fishes."

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4. Dr. A. L. Tester and assistants plan to use EMBL for extended periods this year, particularly during the summer, in their research supported by the Office of Naval Research, project Nonr-2/56(00), "Research on Shark Behavior." Dr. Tester will be at EMBL from 26 January to 10 February, 1959, to investigate the opportunities for conducting experiments on the behavior of sharks, both in tanks and in natural waters. This project is particularly apropos for EMBL, both from the standpoint of the availability of sharks and from the standpoint of learning more about the potential shark hazard at Eniwetok.

5. Dr. R. W. Hiatt will have two graduate students at EMBL the entire summer working on the biology of land crabs. I plan to spend about four weeks there during the summer and shorter periods during the remainder of the year. I will be at EMBL from 26 January to 10 February, 1959 during my first visit since my return from Europe. A new inventory will be made and supplies checked for the summer period operation.

6. Dr. John Garth will spend about four weeks at EMBL late in the summer to collect additional data on the larger crustaceans on which he plan to prepare a paper for publication.

7. Mr. Fred Ziesenhenné is uncertain whether or not he will have an opportunity to collect additional echinoderms this summer before he completes his studies for the named reference collection.

8. The Laboratory of Radiation Biology of the University of Washington will utilize EMBL facilities as follows:

a. During late February and March this group, together with a group of about 20 persons from the Brookhaven National Laboratory under the direction of Dr. Robert Conard, will go to EMBL, Rongelap and Utirik.

b. A second trip by this group will take place during July and August.

→ | For the March trip a jeep or a weapons carrier will be needed from Eniwetok for the work on Rongelap, as will loading and unloading facilities for the iron room now stored at EMBL. Laboratory space will be needed for 6-8 people at EMBL. M-boats and other support facilities will be provided. ?

For the summer trip use of the LSM Alato is necessary and arrangements will be made at Eniwetok to facilitate this. A "DUKW" and operator and a jeep or weapons carrier will be put aboard. Laboratory space for 6-12 persons will be required at varying periods during this time. Local and inter-atoll flights will be arranged.

Dr. Paul Saunders, working with the venoms of stone fish and turkey fish, writes that he will not want to go to EMBL this summer, but should like the laboratory assistants to send him all the stone fish and spines of turkey fish they can collect. A shipment to him of such material was made as of this date.

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At this moment I have no other requests for space. However, with the appearance in print of the announcements recently sent you others will doubtless be writing for information.

I trust these data will be useful to you in keeping abreast of activities at EMBL.

With best personal regards, I am

Sincerely yours,



Robert W. Hiatt, Dean  
and Director of Research

RWH:fq

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