

Summary of the Telephone Survey on Gorgas Memorial Laboratory

Conducted July 13-17, 1983

Michael B. Macdonald, under contract to OTA, conducted a telephone survey of experts knowledgeable about the Gorgas Memorial Laboratory (GML). OTA supplied Mr. Macdonald with a list of approximately 70 potential interviewees. He attempted to contact each of them, and was able to complete 23 interviews. (The individuals contacted are among those included in the Acknowledgments for this memorandum.)

The original list of potential interviewees was compiled by OTA staff. It included the names of individuals known to have specific knowledge of GMI/GML. The names were gathered during the previous 2 months of preliminary work on this technical memorandum. During that process, solicitations were continually made for additional people who would have useful information on this subject. Names were added to the list regardless of whether biases of the individuals were known or unknown to OTA, and regardless of the nature of those biases. The wide range of responses, positive and negative, gives some assurance that a spectrum of viewpoints was expressed, though OTA does not claim the survey to be global or entirely representative of opinion about Gorgas.

Most of those contacted by Mr. Macdonald had some firsthand knowledge of Gorgas. They had either worked there, collaborated with Gorgas investigators, participated in site visits, or had experience with Gorgas grants or contracts. Nearly all those who participated in the survey are technical specialists in tropical diseases, including experts in infectious diseases (mainly arboviruses and other viruses); malaria, leishmaniasis, helminthic, and other parasitic diseases; traditional tropical disease and cancer epidemiology; vector biology; microbiology; nutrition; and the general fields of clinical research, tropical medicine, preventive medicine, and international health.

Ten of the participants hold positions in U.S. academic institutions, five are in the military, six are employed by other U.S. Government departments (Department of Health and Human Services and Department of State), and two are with an international health organization.

The results of the survey are summarized in the remainder of this appendix. Opinions and quotes are not attributed to specific individuals.

1. How would you rate the work of GML?

The respondents generally rated the quality of work at GML high. Most felt that some programs were excellent, especially the work on arboviruses, malaria, and medical entomology, while other programs, such as the bacteriology, were of lower quality. Three respondents said that GML has done excellent work. The most solid endorsement came from one who said that it was "outstanding, the best in the world." Two others who have spent many years in tropical medicine stressed that the location of GML makes it an excellent site for training, as a place for visiting scientific groups, and for field situations that are not available elsewhere.

Other responses were less enthusiastic but still generally positive. Some programs were considered excellent, others less so. One person commented, "Like any large institution which has existed for many years, it has its weak points, but on a scale of 1 to 5, I would give it a 4 (high)." Another offered a similar rating. He felt that while some of the research may not be original, it is technically very good.

Certain programs, including the entomology, virology, and malaria work got high marks. Other programs that were rated as excellent were the cancer and sexually transmitted diseases programs, trypanosomiasis and leishmaniasis studies, and the ecology and environmental studies.

One respondent said that while the arbovirus and ecology studies were excellent, some of the other programs were "mediocre." Another individual commented, "some of the work was excellent, some routine, but you can expect that in any institution that has existed for so many years."

The bacteriology and some parasitology programs were sometimes said to be the weakest points. Two respondents characterized some of the parasitology studies as slow but steady.

Many chose to qualify their answer and said that one must consider the setting when rating the work of GML. The field conditions make it a much different situation than that of the National Institutes of Health (NIH), for instance. One person commented, "I would rate the work as high. As a person who has worked in the field for many years, I know what tropical medicine work is like. Its only weak point is the decrease in support which makes it difficult to attract top scientists." Another also rated the work as "undersupported."

2. How should GML be judged?

The quality of publications and GML's impact on the public health of the region were the most frequently offered criteria for evaluation. Other responses included judging how GML fared in grant competition; on the productivity of researchers; on the reputation of the staff; on the training provided at GML; and by the contributions to progress against specific diseases.

Those respondents with the most experience in the field stressed that one should not make a direct comparison between an institution such as GML and university or NIH laboratories. Some felt that it should be judged on a regional basis, in comparison to laboratories in other countries in the region. One individual pointed out that because many of the programs are involved in vector control, it is inappropriate to look simply at short-term output. The benefits of surveillance accrue in the long term.

3. Has the quality of research changed over the years?

Most of the participants agreed that this was a difficult question, since the emphasis of the research has changed. Many chose not to answer. Three thought that there was no change. Two said there had been a positive change. Four others said that there were fluctuations in the quality of research, but through all of the fluctuations, some programs, such as entomology, continued to meet a very high standard.

A number of people responded that there has been a general decline in the quality of the research over the years. All of those who said that there has been a decline blamed the uncertain funding, citing an inability to buy sophisticated equipment or attract top-notch scientists.

4. Are you aware of the Peer Review Process at GML?

Few had any knowledge of the peer review process at GML. There was a general lack of consensus about whether such a process exists. It seems that respondents felt that sometimes the peer review process was operating, while at other times it was not, possibly depending on who was in charge. One person commented that a process exists, but it needs strengthening.

5. What is the relevance of GML to research in: Panama, Latin America, the United States, and Biomedical Research in general?

In various ways, GML research is perceived to be relevant to Panama, the region, and the United States. A number of individuals noted that Panama benefits from activities such as the surveillance field studies and the environmental impact assessments of hydroprojects.

Another respondent, familiar with the cancer research, noted that GML has been a great help in increasing the sophistication of Panamanian cancer researchers.

In terms of the region, GML served as a serum and data bank during the recent dengue epidemic. It was also the only laboratory in the region that was capable of looking into the resurgence of yellow fever.

Another aspect of its importance as a regional center is that it is a place where researchers in Central and South America can call and receive answers in Spanish.

Everyone contacted mentioned that GML is particularly important to the United States, specifically for the military. Since NIH no longer has its own laboratory in Central America, it is the only place for the military to commission work in the region.

One respondent said that if GML did not exist, then the military would have to build its own tropical laboratory.

Many respondents stressed the *potential* impact of GML work. Some said it should be more closely linked to the Panamanian Ministry of Health, that it should be a leader in the region and that it could be more productive. One respondent, however, felt that political barriers presently limit its importance as a regional center.

6. What is the value of the training in tropical medicine carried out at GML?

Most of those who commented gave GML training a high rating. They felt that it was a unique setting and very important to maintain, since there are so few other places available for training in tropical medicine. One person said that a training center in a place such as Puerto Rico, for example, would not be as valuable because of a different disease ecology. Two respondents offered the same quote by General Douglas MacArthur that in the Philippines he needed three divisions to do the work of one, since two would always be in the hospital with malaria or dengue.

Not all of the responses to this question were positive. Two felt that the level of training had gone downhill over the past few years because of financial constraints. Another felt that the trainers were not sophisticated enough. He noted that there were more Panamanians involved in the training now and that the program was hurt when NIH cut back on funding for young American scientists to go to GML. A third negative opinion was offered by a university scientist who felt that there should be more civilians involved in training programs at GML.

7. What is the value to research of the animal population kept at GML?

Nearly all of the responses to this question were very positive about the animal populations. This question evoked the most immediate and strongest reactions of any on the survey. The colonies were variously termed "Crucial, Critical and Unique, cannot be duplicated elsewhere." One noted that this function is becoming even more important with the increasing prevalence of malaria strains resistant to current drugs. A number of respondents noted that it was much more cost effective to keep the colonies in Panama than in the United States. Besides malaria, the colonies are very important in the study of diseases such as trachoma and hepatitis.

One person stressed that the work on antimalarial must be carried out. He said that if GML cannot do it then the Army would have to build its own lab to screen the antimalarial drugs. Others concurred that this was one of the most important functions of GML. "The screening of antimalarial must continue." "The monkey colonies are invaluable to our study of human malaria." It was mentioned that to an outsider the colonies seem to be dull and routine work, but they provide a very important service.

One who is quite knowledgeable about malaria felt the value of the *Aotus* population had declined over the years and that there was some difficulty in meshing the colony to current research needs. He felt that the colony was not reaching its potential.

In addition to the monkey colony, it was mentioned that the wild animals in the area also provide a very valuable resource for the study of disease ecology of such diseases as leishmaniasis, the arboviruses, and Chagas' disease.

8. Do you have any suggestions for change?

Nearly all respondents had suggestions for change: stabilization of funding and increased funding were the most common answers.

It was felt that the constant budget problems eroded the confidence of the staff and GML's attraction to top scientists. One respondent who had worked there for many years said that it was demoralizing to hear at every weekly meeting that, "Funding might be cut next week." He said that uncertain funding was a major reason for failing to attract top university scientists. One said that GML cannot continue in such a precarious financial position and that it should either be funded properly or closed. Others felt that GML/GMI should look for more international support and operate more like the cholera research institution in Dacca or the International Laboratory of Research on Animal Diseases in Kenya.

Another respondent suggested that GML should collaborate more with labs in the United States, but bureaucratic changes would be needed for travel money and arrangements for cooperative agreements with other institutions.

Some felt that major changes should be made in the management structure of GML/GMI, expressing the opinion that even with solid core support, they would not be able to compete with other tropical medicine units. "The current direction must change" noted one individual. The need for a strong executive was recognized by many other respondents. One felt that they should pay the high salary needed to get a good director in the United States and in Panama. Two other scientists with many years of experience in tropical medicine felt also that it was important to develop closer ties to the region.

Other suggestions were for more long-range planning, a firmer peer review process and pruning the dead wood. Two felt that there should be closer links to basic science and a greater use of more sophisticated immunologic and diagnostic techniques.

9. What do you think is the overall value of GML?

All the respondents, without exception, felt that it would be a terrible mistake to lose GML. "For better or worse, it is the only one we have, and we are better off with something than nothing. If it did not exist [the military] would have to build one there." It is a resource that cannot be duplicated. "It is irreplaceable in the panorama of tropical disease research related to Latin America and the United States." A number of other respondents noted the unique setting of GML. "While it does have its weaknesses, it would be a terrible mistake to let it go." "The relative cost is peanuts compared to the benefits, and it would be insane to reduce our limited involvement in the area." "If lost now, we would never get it back."

Many spoke in terms of GML's potential. One felt that GML's value now was only marginal but that it could be great, if it had stable funding.

GML is also viewed as a front line defense against certain diseases that could spread to the United States. Panama Canal forms a barrier to many diseases at this point. But now that the Pan American Highway is opening up it is even more essential that diseases such as foot and mouth disease, swine fever, yellow fever, Venezuelan and eastern equine encephalitis be confined at this point.

Besides its importance in traditional tropical medicine, GML is very important in cancer research in the region. It is unique in that it is capable of doing sophisticated cancer research in a place which is in the process of modernization.

GML was also felt to be very important politically. It would be an affront to Panama if we pulled out as it is a very important indicator of U.S. concern with nonpolitical problems in the region. The general feeling was **that with the current direction of** events in the region, GML is becoming more important than ever, if constructive changes are made.