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SPACE REQUIREMENTS FOR RESEARCH AND TEACHING IN MICROBIAL GENETICS

The University of Wisconsin has established an excellently equipped laboratory for research in the genetics of microorganisms. However, present operations are limited primarily by space restrictions which preclude optimum efficiency in the carrying out of current research programs, as well as the establishment of adequate teaching and service programs for the University.

The most urgent need is for an enclosed room, ca. 150 sq. ft., in which to house special apparatus. At present, such instruments as the Warburg respirometers, analytical balance, spectrophotometer, ultra-violet lamp, and vacuum-pump sterile filtration and lyophilization assemblies, are scattered around the laboratory, wherein they occupy a disproportionate amount of potential working space, owing to the necessity of protecting them from breakage from heavy traffic. When the instruments are not in immediate use, part of the room would be used for preparative work not requiring special service facilities—tubing of medium, plugging, clerical work. Such space would release more than its equivalent in the laboratory, and help to relieve the congestion engendered by four essentially full-time research personnel, large scale production of bacteriological media, and a heavy load of dish-washing which must be carefully handled because of the nutritional aspects of the research work, all of which must be carried out in the laboratory room.

A second requirement, of long-term but urgent importance, is for additional working space such as might be gotten in Room 200 with a minimum of remodeling if it could be released. The provision of an apparatus room, mentioned above, would leave enough space so that the current research program would be carried out under merely moderately congested conditions. However, the provision of desk space, with gas service, for 6 - 10 students, would have the following application:

1. It would make it possible to offer practical laboratory work in microbial genetics. There is a growing demand for technical training in this direction, as testified to by the popularity of the summer "Phage Course" at Cold Spring Harbor, L.I., and the projected establishment of a bacterial genetics techniques course this summer at the California Institute of Technology. Students at the University of Wisconsin should have a comparable opportunity for advanced laboratory training in this field, which is becoming of great applied importance to industry, as well as a well-established academic research area.
2. It would make possible short-term collaborative projects with other departments. Students and staff in such departments as Ag. Bacteriology, Biochemistry, and Plant Pathology have expressed

their interest both in learning certain techniques, or in carrying out certain aspects of their research in the Microbial Genetics Laboratory, but we have been severely limited by the lack of suitable space. A few such arrangements have been made, but they are prohibitively disruptive to our regular program.

3. A number of requests have been received from scholars now at other institutions to visit for periods of one to three weeks for the purpose of familiarization at first hand with techniques and principles of bacterial genetic research. With one very brief exception, it has not been possible to honor such requests, in my opinion an unfortunate exception to Wisconsin's position as a preeminent center for the diffusion of scientific knowledge.

4. It would also, of course, augment our capacity for research in microbial genetics, but this objective is regarded as secondary to the foregoing.

Respectfully submitted,

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