The instrument's mirror is now being completed by a specialist of the Paris Observatory. According to the press, the mirror was originally cast at the beginning of World II and secretly taken to Saint-Michel to keep it out of the hands of the Germans. It was returned to Paris in 1952 to be completed. It weighs 1½ tons.

The special dome, the sixth at the Haute-Provence Observatory, will be equipped with eight suction devices that are expected to make possible better photographs by eliminating unnecessary air movements within the dome. Other equipment includes a 16½-foot spectroscope and an electronic camera.

The installation of the telescope will take only a few weeks; however, the mirror will not be ready before October. Since the final adjustments will also take a few more months, the telescope is not expected to be in full operation until the beginning of 1958. It will be used under the direction of Charles Fehrenbach, science professor at the University of Marseille, and director of both the Marseille and Haute-Provence Observatories.

Missouri Medical Center

The University of Missouri has dedicated its $13,600,000 Medical Center. In addition to the 441-bed teaching hospital, the center includes a Medical Science Building and a nurses home. The new facility makes possible a 4-year medical course for the first time since 1910.

Antibodies

U.S. Public Health Service scientists have reported the first direct measurement of the rate at which the tissues of a human being manufacture antibodies against disease. They made their observations by transplanting from one person to another the lymph node system involved in producing antibodies.

The research patient, a 64-year old woman, was selected for the study because she had the rare disease hypogammaglobulinemia. This disease offers an ideal opportunity for studying the mechanisms of immunity, because (i) the lack of antibodies characteristic of this condition enables measurements of production, once a system for manufacturing them has been "installed"; (ii) patients with hypogammaglobulinemia will tolerate transplants that would deteriorate in a few days in normal people; (iii) transplantation of the lymph node system is theoretically beneficial to the patient.

The studies were conducted by C. M. Martin and N. B. McCullough of the National Institute of Allergy and Infectious Diseases, in cooperation with J. B. Waite of the National Cancer Institute. Their results appear in the current issue of the *Journal of Clinical Investigation.*

In June 1955 the transplantation was undertaken. The surgeons made eight incisions in each thigh. In a concurrent operation on the patient's sister, they obtained 16 lymph nodes and planted a slice of node in each incision. The other eight slices were preserved for comparison studies.

On the 7th, 14th, and 20th days after transplantation, the patient was challenged with injections of typhoid vaccine. She responded by making typhoid H and O antibodies. The transplanted nodes were performing the function her own system had lacked—that of producing antibodies against disease. She had further responses to booster doses of vaccine on the 68th and 98th days. Presumably the death of the nodes occurred between the 150th and 160th days. A sensitivity to tuberculin antigen acquired from the donor remained months after the transplants apparently ceased functioning.

Applying statistical methods to observed levels of antibodies and dividing by the weight of the transplanted tissue (845 milligrams) the research team obtained a series of values for each day that represent the first direct measurement in a human being of the rate at which tissue manufactures a protein (in this case antibodies) in the blood.

The findings suggest that human lymphoid tissue normally responds with remarkable speed, versatility, and production capacity to a challenge from an invading organism and can "tailor make" antibodies of different patterns to meet different challenges just as quickly as other tissues are turning out unvarying products such as enzymes and hormones.

Kimble Award Nominations

Nominations for the sixth Kimble methodology research award may be sent to the Conference of State and Provincial Public Health Laboratory Directors *until 1 June.* This award, established by the Kimble Glass Company, consists of $1000 and a silver plaque. It will be presented at the annual meeting of the conference to be held in Cleveland, Ohio, in November.

Candidates' work to be considered for nomination should be either (i) a fundamental contribution that serves as a baseline for development of diagnostic methods that fall within the province of the public health laboratory, or (ii) the adaptation of a fundamental contribution to make it of use in a diagnostic laboratory. Candidates must be from the United States, its territories, or Canada.

Nominations may be made by authors, their associates, or others. A nomination should be accompanied by a statement justifying the recommendation, six summaries of the work, and six reprints. If reprints are not available, six summaries with bibliography will be accepted.

Nominations may consist of a group of workers or one author. If the former, the cash award will be divided among the workers but the plaque accompanying the cash award will become the property of the laboratory where the work is done. Nominations should be sent to the chairman of the nominating committee, Howard L. Bodily, State Department of Public Health, Division of Laboratories, 2151 Berkeley Way, Berkeley 4, Calif.

Improving Advanced Undergraduate Courses in the Biological Sciences

An idea for redesigning college courses and textbooks in the biosciences to meet the criticism that courses are not keeping pace with fundamental advances in their fields is being tested by the Committee on Educational Policies of the Biology Council, Division of Biology and Agriculture, National Academy of Sciences–National Research Council. The plan is to ask an *ad hoc* panel of competent people in a given field to redefine course objectives and develop a comprehensive outline, to be published for the guidance of instructors and authors. The panel would produce only the single report, for the aim is not to replace one orthodoxy by another but to initiate what could become a continuing process of cooperative reevaluation of courses.

Aided by a National Science Foundation grant, the committee is testing the plan in two areas. If trial indicates the approach is sound, the committee hopes that professional societies and others concerned with particular subjects will be encouraged to sponsor similar critical studies of college courses.

The test fields are parasitism and systematic botany. Members for both panels were selected on the basis of suggestions from a number of sources, including the American Society of Parasitologists and the American Society of Plant Taxonomists. Reports, which are due by July, will be published in journals or by the Academy–Research Council. Both panels will appreciate suggestions and ideas on the form and content of undergraduate courses in their subjects.

Members of the *ad hoc* panel on systematic botany courses are Lincoln Constance (University of California, Berkeley), *chairman,* Harlan Lewis (University of California, Los Angeles), Reed