

study, fuller examinations will be made, and the results will appear in the publications of the Carnegie Museum. O. A. PETERSON.

CARNEGIE MUSEUM, PITTSBURGH,  
August 18, 1904.

#### QUOTATIONS.

##### THE CANCER RESEARCH FUND.

AMONG the facts established by the report is that cancer can be successfully transplanted from any animal into another animal of the same species, but not into an animal of a different species; and this inoculability, so to speak, will hereafter be largely utilized for the purpose of obtaining cancer patients. A single cancer may in this way be passed on, so to speak, through several generations of animals, the original growth and those arising from it surviving all the hosts in which they have successively found the materials for their support; and it is further remarkable that the growth of cancer is found to be of a character unlike the growth of an individual. Every individual life, whether of plant or animal, springs from the union of two parent cells; but, when this union has been effected and the life of the new individual has commenced, its future growth is provided for and maintained by a simple division and subdivision of the cells entering into its several structures. In the case of cancer, however, it has been found that cell conjugation is continuous, and that the growth as a whole may therefore be regarded as a colony of individuals producing offspring, rather than as a part of the tissues of the subject in which it grows. It is so far definitely parasitical in its character; and it is suggested that the means of arresting it may probably be found in the employment of some method by which the cell conjugation occurring in its mass may be prevented. The inquiry will be pursued in this direction; but, while the bulk of the inoculation experiments hitherto instituted have been in small animals, and chiefly in mice, it will be necessary to use larger ones, of species whose life histories have been more carefully studied, for the purpose of investigating methods of treatment likely to prove applicable to the human subject. Perhaps all that can fairly be said, at this

stage of the inquiry, is that the ground has been cleared of much error, and that paths apparently leading towards future progress have been brought to light.

It must be regarded as a matter for much congratulation that the evidence so far obtained does not confirm the popular belief in the increasing frequency of cancer; although Sir William Church, in his speech moving the adoption of the report, was careful to indicate that no absolute conclusion could be reached in relation to this part of the subject. The statistics obtainable, especially with regard to the past, are not sufficiently trustworthy to justify the formation of positive conclusions; while the improvements recently effected in microscopes, as well as in the methods of preparing tissues for examination, have rendered it more easy now than at any former time to pronounce authoritatively on the cancerous or non-cancerous character of any growth that is either removed from the living body or discovered after death. It will be seen from the abstract of the report that a considerable percentage of cases of suspected cancer have been discovered, on microscopic examination, not to be of that character; and the superintendent, Dr. Bashford, points out that this affords a probable explanation of a good many reputed 'cures' of the disease. A fact of equal importance is that really cancerous growths are not attended in their early stages by any special symptoms from which their character can be detected with certainty; and on this the report founds a strenuous recommendation that all growths which are even possibly cancerous should be removed by operation without delay.—The *London Times*.

#### NOTES ON INORGANIC CHEMISTRY.

##### RADIUM AND RADIOACTIVITY.

THE study of radium and radioactivity continues with unabated zeal, and new light is being continually thrown upon the subject. Naturally Sir William Ramsay must be recognized as one of the foremost workers, and whatever comes from him carries great weight. For this reason great interest attaches to a recent communication of his in the *Comptes Rendus* on the radium emanation, for