

the association of chronic irritation with its origin, and based upon a study of the variability of tumour cells, the Fifth Report deals mainly with the nature of the resistance which may be obtained against the growth of inoculated cancer. The evidence adduced tends to prove that the resistant condition can only be induced by treatment with living normal or cancerous tissue of the same species as that furnishing the tumour tested against, and that the resistance is always an active immunity. The facts which have been held to establish the existence of another kind of immunity in cancer—a starvation immunity, Ehrlich's atreptic immunity—have been shown not to require this assumption but to be naturally explained by the mode of operation of the active immunity referred to. Natural healing occurs very much less frequently in spontaneous tumours than in transplanted. Only one per cent. of spontaneous malignant new growths recede naturally. In the natural healing of transplanted tumours two factors appear to operate: the first is the power of the transplanted cancer cells to induce active resistance in fresh animals; the second is the susceptibility of the tumour cells to this resistant condition. Great variations in both respects are met with in the different strains of transplanted tumours, so that some grow progressively, as do the majority of spontaneous tumours, while others, being susceptible to the resistance they themselves induce, regress spontaneously in practically every case.

The details of the process of natural healing seem to be very closely alike in spontaneous and transplanted tumours, but while in transplanted tumours it is pretty certain that the damage to the cancer cells is due to the resistant condition, the causes of the cell damage which leads to natural cure in spontaneous growths are still quite obscure. Attempts to achieve this action by means of drugs are being widely made, but as yet with little success.

Appreciative reference was made to the loss the Fund had sustained through the deaths of Sir Julius Wernher, Lord Lister, Mr. Archibald Coats, and Sir Henry Butlin. Sir William Watson Cheyne was elected Honorary Treasurer in succession to Sir Henry Morris, who was elected a Vice-President on the suggestion of the Duke of Bedford. Professor Woodhead was re-elected a member of the Executive Committee and Dr. William Bulloch was elected to the Executive Committee.

#### MR. JAMES DUNN.

MR. JAMES DUNN, who died suddenly at York on the 17th inst., was a well-known naval architect, whose professional career had been long and honourable in the service of the Admiralty until he attained (fifteen years ago) the age-limit of sixty years, which permitted him to retire on pension. Since 1897 Mr. Dunn has been connected with the great firm of Vickers and Company, serving as director and chief naval constructor, and he was actively

engaged on these responsible duties until a few months ago, when he retired from active service in these offices, although his interest in the ship-building department continued. During this latter period of his professional career Mr. Dunn was most successful; the ships for foreign fleets designed and built under his supervision have added greatly to his reputation, and to the success of the company. It is interesting, therefore, to summarise the principal facts of his training and employment; more especially as Mr. Dunn never had the opportunity of studying at any school of naval architecture wherein the science of ship-building was systematically taught, because no such school existed at that time in Great Britain.

His training began by apprenticeship in Chatham Dockyard as a shipwright, at the age of fourteen years, and included attendance at the dockyard school, where the apprentices were instructed in mathematics and the elements of physical science. On the completion of his apprenticeship he became a draughtsman, and in that capacity was transferred to the constructive department at the Admiralty about 1860, when the ironclad reconstruction of the Navy was begun. This employment lasted about seven years, and was followed by a period of service as resident overseer of ships building for the Navy; after which Mr. Dunn returned to the Admiralty and resumed work in the constructive department, rising in rank gradually, until (in 1894) he became principal assistant to the Director of Naval Construction (Sir William White), and for three years did excellent work in that capacity. Certain special duties were from time to time entrusted to Mr. Dunn, and were well performed. In 1875 he undertook the survey of mercantile steamships and framed a list of vessels the subdivision and other features of which made them suitable for naval service in case of war. In 1884 he had much to do with the construction of the flotilla of boats built for the advance up the Nile of the Gordon relief expedition. He was the Admiralty representative on many important committees, including that which led to legislation for fixing the load-lines of merchant ships. His tact and temper were admirable, and his wide and varied experience made him a valued colleague wherever he was employed. His contributions to technical literature were not numerous, but were always practical in character and full of suggestive statement. His connection with the Institution of Naval Architects was formed very soon after it was established, and he was elected a Vice-President many years ago. His loss will be greatly felt in that Institution and by the members of his profession. W. H. W.

#### ANDREW LANG.

SCIENCE and letters are the poorer by the death of Andrew Lang. For in him we lose in criticism, anthropology, history, and psychic research, not to mention many other subjects digested by his versatile mind, a brilliant amateur. We should rather say a knight errant, for "amateur" still has a tinge of reproach, and Lang