

As a result of development along so many diverging lines the study of modern medicine is concerned with a field so wide that he who glances over it, cannot fail to be appalled by its magnitude. No single intelligence can in these days be familiar with the details of growth in all its parts; no single individual can hope to work efficiently in one or two of its sub-divisions. The complexity of the work demands a division of labor, and most is gained from the efforts of men, who familiar with the general trend of progress in the whole field, concentrate their activities upon some one corner of it. Individual workers in the special medical sciences are pushing their investigations at the moment with unwonted zeal. Anatomists are ever devising new technical methods; the cells, formerly believed to be very simple "elements," are found to be highly complex organisms; parts of the body, as for example, the nervous system, are having their true cellular nature for the first time revealed; the structural basis of the intrinsic mechanisms of individual cells are in process of demonstration; the relations of the basis in one cell to that in other cells are being found out. Physiology for so long interested in the hydraulic principles of the circulatory apparatus and the muscle-nerve preparation is being diverted into new channels of research utilizing in its experiments the newly discovered principles underlying chemical and physical phenomena. The oxygenating and reducing processes which occur in the body, the various stages of anabolic and catabolic metabolism, the phenomena of secretion and excretion, the interrelations of the various bodily activities, the functions of the different neural complexes, mechanisms of defence and adaptation—these are some of the passages along which physiologists are navigating.

In pathological anatomy and physiology just as strenuous efforts are being made as in the other fundamental departments. Our ideas concerning inflammation have been so much modified that we are advised by some of the ablest pathologists to give up the term altogether. The nature of inflammatory exudates is still under discussion; what elements are of hemic and what of local origin are disputed; the great cleft between the acute inflammations and the chronic processes associated with production of new connective tissue is still unsatisfactorily bridged. The etiology of tumors, as yet unsolved, stimulates the embryologist on the one hand and the parasitologist on the other to renewed exertion. New tumors are being discovered, old ones are being regrouped, finer and finer distinctions between benignancy and malignancy are being drawn with results eminently satisfactory for the practical surgeon.

The therapeutic hopelessness that pathological anatomy inspires is more than compensated for by the faith in the future