## PROCEEDINGS OF THE FIFTY-FIRST ANNUAL MEETING OF THE AMERICAN SOCIETY FOR CLINICAL INVESTIGATION HELD IN ATLANTIC CITY, N. J., MAY 4, 1959

PRESIDENTIAL ADDRESS

## OBSERVATIONS ON GROWTH AND DEVELOPMENT OF CLINICAL INVESTIGATION

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With this meeting, our Society begins its second halfcentury. Fifty years ago, the first president, Dr. S. J. Meltzer, addressed the 15 members present at the first meeting of the Society. His topic was, "The growth and differentiation of the medical sciences," a subject of lasting interest and importance. "In years gone by, medicine was a unit and its leaders tried to master all its aspects. With the development of scientific methods and the growth of knowledge, heavy branches grew out of the stem of medicine, broke off and obtained an independent existence. Anatomy broke away early, then followed physiology, pathologic anatomy, pharmacology, physiologic chemistry and bacteriology. What is left of the old stem is clinical medicine—but this is made up of one part which is the practice of medicine, an applied science which has many elements of an art, and the other part is clinical investigation, which ought to be coordinate to the other pure sciences. The men to carry on this research must not only be informed and trained in the other sciences of medicine, but they must have carried on investigations in pure science, to learn to shape a problem so as to make it amenable to a solution, to marshal the steps of investigation to answer the question, to avoid bias in the search, to apply criticism to the findings, to trust few facts, to temper enthusiasm over discovery, and not to be disheartened by failure. Thus they acquire the habits and tastes of the scientist and investigator. However, after all these preparations, they must select clinical research as the main field of their scientific activity. Teaching medicine and furthering its science is a serious business which ought to be carried on by men who are ready to devote all (or most) of their time to it."

The constitution proposed by Dr. Meltzer, Dr. Warfield Longcope and Dr. Henry Christian recapitulated these broad objectives: "The cultivation of clinical research by the methods of the natural sciences; the unification of science and practice of medicine; the encouragement of scientific investigation by the practitioner; the diffusion of a scientific spirit among its members and among the students who come under their charge."

At first, the Society grew in a typical exponential curve. Within 10 years, it was necessary to limit the program. By 1924, the membership was restricted, but at the same time provision was made for transferring older members to emeritus status, thus opening up places for younger men and ensuring their predominance in the

affairs of the Society. Economic depression or war may have limited university appointments or opportunities for research, but they sharpened the insight and determination of many young physicians to fulfil their ideals in clinical research. More recently, with active encouragement, the field of clinical investigation has entered another stage of explosive growth. The members return faithfully to the annual rites of the Society to find the temple crowded (if not outgrown), the reports of investigations more penetrating and significant (but also more specialized) and their officers bewailing travails of choosing, from a great wealth of deserving candidates and brilliant works, a few individuals and papers to fill the quotas set by the Society.

Growth is normal and inevitable in a favorable environment. Populations increase whenever opportunity for expansion is offered to a healthy and vigorous stock, when land and livelihood can be had for a reasonable effort. Growth slows and stops when opportunity ends, when crowding, poverty, discouragement, or disease become prevalent. On the other hand, rapid population expansion may appear again when one factor (such as health) is improved—and although the cause is admirable, the result may be a serious disturbance of established ecologic relationships.

The present rapid growth of clinical investigation is attributable to a substantial increase in gifts and support, translated into fruitful activity by clinical investigators in our medical schools and hospitals. This is no temporary spurt. Barring war or unforeseen disaster, public support for clinical investigation will continue as long as the investigators deserve it. The public rightly believe that their future depends on scientific research, and they take a personal and detailed interest in medical research. Clinical investigators are obligated to maintain such high standards that no general disappointment and disillusionment will cast shadows across their future. The public is reasonably tolerant of premature and extravagant claims, but each retreat entails a perceptible reduction in the audience's confidence in the proponent. Publicity is poorly correlated with significance, and too much outside attention may interfere with the conduct of the work. The dignity and integrity of scientific publication are of concern to every scientist.

Increasing the mass of clinical investigation will not necessarily produce a proportional increase in worthwhile results. Elaborate projects, which attempt by sheer size to explore every possible contingency, generally produce more data than enlightenment. New ideas and contributions are likely to come from the investigator with the training and attitudes which Dr. Meltzer set forth, working in the laboratory and clinic with enough help to save him from routine chores, but not so many assistants as to insulate him from sensitive contact with the patients or the tests and measurements upon which his research depends. If clinical research is to prosper, more investigators must be developed, and suitable posts must be established for them.

Clinical investigation has somewhat more complex growth requirements than research grants alone will satisfy. Twenty years ago, Dr. Alan Gregg of the Rockefeller Foundation wrote, "Short-term grants buy most for the dollar, but violate sentiment and lead to resentment. Lots of little grants build up paper work; investigative work loses its tempo; worry about renewal diverts the investigator toward easy goals; junior staff become suspicious or embittered; administrators are uneasy." The influx of large research funds and their additional staff has been most welcome; but to prepare for growth, not only more students and fellows but also more faculty and more space are required in our medical schools.

Full-time faculty must be increased if we are to increase our pace of teaching, seeking out and cultivating new talent, research and administration. Differentiation of functions and delegation of duties offer temporary relief, but beyond a certain point, Parkinson's Law comes into play. Imagine, if you can, the present university faculty with ever-increasing loads of teaching, research, patient-care and administration; surrounded by large numbers of talented young men in training for a few permanent posts; all men being appointed for short periods and their work supported on short-lived grants. Now imagine the professor-administrator teetering on the apex of this unstable human pyramid. E. Northcote Parkinson has given the agitated paralysis of James Parkinson a whole new dimension. Let us give thanks for present blessings, but let us also encourage and support those who work hopefully toward solutions of remaining problems.

What will be the effects of the growth of clinical investigation on this Society? The membership of the Society will increase gradually under the present plan,

and further increases will be proposed if the present trend continues. Increasing numbers of candidates will cause more sleepless nights for the Council, and some changes in the administration of the Society's affairs may become necessary. It is to be hoped that sufficient places will be made available so that the Society will never appear as a remote and unattainable goal to the promising young investigator. If the doorway to admission is too widely opened, however, membership will quickly rise above a manageable functional limit. Undue corpulence reduces the mobility, efficiency and prospects for survival of an adult. A more natural expression of growth after maturity is the appearance of new members of the species. In a well-regulated family, the younger members pass through stages of progressively increasing independence and occasional healthy antagonism; but sentiment joins with mutual interest and advantage to hold the group together. The traditional meeting of this Society on the day before the Association of American Physicians has reflected a long and happy community of interest. We welcome the opportunity to join with the American Federation of Clinical Research in sponsoring the Section meetings.

If the Society is to progress toward the promise and goals of its founders, their lively pioneer spirit must be neither drowned in excessive numbers nor immobilized in outdated tradition. Let us look to the next 50 years with a welcome to many more of Dr. Meltzer's "brainy young men" and to their fresh ideas and new programs for this ever youthful Society.

## REFERENCES

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