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President's address

Kenneth P. Mathews, M.D.

One looks forward to the opportunity of presenting a presidential address as a once-in-a-lifetime chance to speak without strict time limitations and to make generalizations without feeling impelled to document every phrase. When the occasion actually arrives, however, one realizes that the purpose of presidential addresses seems not to be well defined. At times they appear to serve the function of keeping the audience awake during an otherwise dull business meeting, but I fear that being an entertainer is not my forte. In another organization I have seen this occasion used to slip in an extra scientific paper which apparently didn't get accepted on the regular program. Certainly the erudite type of presentation which Dr. Keeney made last year would be appropriate, but I do not pretend to have special competence in the history of medicine. I am very interested in education in allergy, but this has been dealt with admirably in several past addresses.

I have chosen instead the topic of long-range planning by allergists. Some such trite title as "Whither Allergy?" might be apropos to my remarks, or perhaps "Allergist or Atopist?" might sound more euphonious. Seriously, however, as one of those beliefs which usually go undocumented in presidential addresses, it seems to me that in ordinary times men and women are often able to exercise a good deal of control over their futures by long-range planning. Unfortunately, this involves a certain amount of prognosticating about the future, an exercise which many people of scientific bent are

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From the Department of Internal Medicine, University of Michigan, Ann Arbor.

inclined to avoid because of the many uncertainties which are involved. Nevertheless, it must be admitted that to drift along is in effect making a decision to do nothing just as surely as deliberate and well-considered planning might more rationally lead to change—or no change.

It seems especially appropriate that allergists consider their future at this particular time, because we appear to be at a crossroads: down one path the allergist will continue to focus his attention primarily on the atopic diseases; down the other path he assumes the broader role of a clinical immunologist with more diverse interests. This dichotomy of approaches to the field has, of course, been developing for some time, but it seems to be coming into especially sharp focus at the moment. What course should the individual allergist take? Certainly this is something which each doctor will have to decide for himself, and probably there are as many answers as there are allergists, depending upon individual interests, training, and circumstances. It seems appropriate, however, to review some of the considerations which should influence one's answer to this important question.

Although von Pirquet coined the word *allergy* to denote a rather broad spectrum of hypersensitivity phenomena, there is little doubt that in current usage it is most often associated with atopic diseases. For example, in defining an allergist, two prominent dermatologists recently stated, "As a practical matter, physicians who call themselves allergists concern themselves largely with seasonal rhinitis (hay fever) and asthma on a basis of allergic sensitization, usually to inhalants and sometimes to foods and possibly drugs. . . . The allergy of infection as seen in the diseases whose clinical phenomena are allergic in mechanism (tuberculosis, syphilis, etc.) and phenomena of immunity that are allergic in mechanism do not at all receive attention by practicing allergists. It would seem that *atopist* would be a better designation for what is now called *allergist*." While I would vigorously protest the validity of this definition, it must be admitted that it does describe the activities of some allergists. Certainly the atopic diseases in themselves do offer a stimulating challenge to the interested physician. The interplay of multiple immunologic and nonimmunologic factors makes each patient a special problem for evaluation, and many atopists obtain additional gratification by pursuing special interests in fields such as botany, pulmonary physiology, pharmacology, psychology, and many others. No doubt these are reasons why many of us are here today. In addition, the number of atopic persons requiring medical care is indeed impressive. Recent epidemiological studies indicate that the prevalence of atopic diseases, at least in some areas, is substantially higher than stated in standard texts in the past. It is difficult to tell whether this increase is real or apparent, but in any event it is clear that the atopic individual is no rare bird. It appears that the prevalence of atopic persons in the general population of the United States is at least 5 to 10 times greater than the proportion of allergists in the medical profession. Insofar as allergists assume the general medical care of their patients, one might deduce that there is a major need for atopists.

Beyond the matter of his needs, however, there is the important question

of what we have to offer the atopic patient. Certainly much can be accomplished symptomatically. For the many with extrinsic allergy, present diagnostic methods are useful, and, when feasible, avoidance measures appear to constitute sound long-range treatment. As viewed from a perspective of 10 to 20 years from now, however, I trust that our present understanding of the mechanisms of extrinsic atopic disease will seem rudimentary: the nature of the antibodies involved is just becoming apparent, and, while techniques for studying the biochemical events in atopic hypersensitivity have been developed, substantial results are yet to be obtained. When we turn to syndromes like intrinsic bronchial asthma, atopic dermatitis, or chronic urticaria, our present ignorance of pathogenesis is even more obvious. I point this out not to deprecate ourselves but rather to emphasize that present knowledge may well represent only a scratch on the surface of what will become known within the professional lifetime of many of us. Incidentally, the same statement probably could be made about many other medical specialties. My purpose in developing this point is to emphasize the probability of change in the atopist's practice as better understanding of these diseases evolves. We should consider ourselves very fortunate indeed to be living in an era when the prospects are so bright for gaining understanding of many of the problems which now puzzle us and when expectations are high for being able to help our patients more effectively. It is probable that many of the most important keys to progress will come to us from immunologists and biochemists, but there is also much important housecleaning for clinical atopists to do in sorting out fact from fancy in the lore of allergy based on clinical impression. While change is both inevitable and desirable, the practicing atopist will be facile in critically adapting to change only if he keeps abreast of both basic science and clinical developments relating to these diseases. Although many allergists may reasonably elect to continue to function primarily as atopists, the least desirable future course of action, in my opinion, is to be content indefinitely to handle atopic patients in a stereotyped, routine fashion with emphasis almost exclusively on skin tests and hyposensitization. The failure of skin tests to aid in the evaluation of some types of patients is already evident. Much effort has gone into providing additional data supporting efficacy of hyposensitization since Dr. Lowell's Presidential Address on this subject five years ago. While some of these studies have shown statistically significant results, they likewise have indicated a lack of complete and uniform responsiveness which one would hope could be improved upon by future therapeutic modalities. One would be even more hopeful of this if he were to survey results of hyposensitization in conditions other than pollinosis. Looking to the future, then, there is likely to be much of interest in the field of atopy, but the physician who limits his approach to skin testing and hyposensitization may find himself as superannuated as the diesel locomotive fireman or the aircraft flight engineer.

Turning to the alternative of broadening one's interests to function as a clinical immunologist, it is evident that the major advances in basic immunology, particularly in the last fifteen years, have begun to have a major

impact on clinical medicine. The question is who will bring this vast and complex body of information to the bedside. There is no reason why this should be the exclusive prerogative of any single group of physicians, and, in fact, individual doctors with a broad variety of special interests have succeeded in achieving competence in this area. Nevertheless, at the moment, it appears that there are many places where there is a need for clinicians who have substantial knowledge of basic immunology and its clinical implications. Because the allergist needs much of this information anyway in order to be a good atopist, it is tempting to expand one's clinical application of it. Incidentally, my impression is that broadening one's area of interest stimulates more enthusiasm about the field on the part of medical students, medicine residents, and pediatric trainees.

While it may be tempting to jump glibly on the bandwagon of clinical immunology, this should not be done without professional competence to undertake this role. The adage "A little knowledge is a dangerous thing" is applicable here, and it would be unfortunate for the field if allergists got involved in problems they could not handle well. We also should be wary of undertakings which would be more appropriate for basic science immunologists.

There are two aspects of having knowledge to serve competently as a clinical immunologist: first, adequate initial training; and, second, keeping abreast of developments in immunology. Many of the recent and current training programs in allergy are designed to provide fellows with substantial experience in basic and clinical immunology. Incidentally, many of the large number of younger persons joining the Academy in the past few years have this type of background. It has been my observation that the most capable potential allergy fellows generally seek out training programs offering opportunities to learn much basic immunology, and the latter is regarded by them as one of the most attractive aspects of allergy training. Those who had their training at times or places not offering these opportunities are at a disadvantage in this regard. Even after having gained a good background in immunology, however, the problem of keeping up with the rapid developments in this field while practicing clinical medicine is indeed formidable and must be particularly difficult for the physician not practicing at an academic center. I think many of us are becoming more and more dismayed about our capacity to accomplish the Herculean feat of keeping up with the literature both in clinical allergy, immunology, and a clinical discipline such as internal medicine, pediatrics, or dermatology. For example, each issue of the *Journal of Experimental Medicine* now contains more papers of direct interest to the broadly oriented allergist than appeared in that journal in an entire year not so very long ago. During 1963 alone, at least 54 new journals in the health sciences were launched, and from their titles it appears likely that 9 of them will contain articles of direct interest to us. Not only has there been an exponential increase in the quantity of relevant published work, but the quality of the papers in many journals invites increasing attention to them. Perhaps we can find some solace in the fact that this is a problem shared by others in many fields. It is inherent in the predicted doubling of

total scientific knowledge within a period of an amazingly few years—if we do not blow ourselves off this planet. Happily, there are some potential compensating factors. Through the application of computer techniques to library science, substantial progress is being made in the classification, sorting, and retrieving of information which should substantially aid in the preparation of medical bibliographies. The increasing number of critical review articles, attendance at medical meetings, and postgraduate courses is also very helpful. In spite of these, however, there is an input overload which makes it impossible for the individual to assimilate all the available important information, and it would be unfortunate if, besides, we were deprived of the pleasure and stimulation of being able to reflect upon and savor good papers because of the stack of journals still waiting to be cleared from our desks.

Even if one succeeds in acquiring the knowledge requisite for being a good clinical immunologist, there remains the question of how such a person fits into the medical community today. We still would not have the total clinical background and experience relating to many of these problems which have been gained by the hematologist, rheumatologist, dermatologist, renal disease expert, or others who traditionally have managed these patients. It should be noted that the immunological factor may be just one facet of the patient's problem, and, in many of the diseases under consideration, the nature, extent, or even existence of an immunological abnormality remains to be clearly defined. I think the objective here is not to supplant others but to supplement their care for the benefit of the patient. This implies a joint or team approach to many of these problems. It is an accomplished fact that for teaching purposes in university centers joint rounds or conferences concerning patients with various types of immunological problems have been found to be highly rewarding at several institutions. How this works out away from an academic setting is less clear. The experience has been that although consultants in related fields are generally familiar with the literature directly concerned with their area of interest, without a broad background in immunology they often feel rather insecure about the immunologic aspects of these problems and welcome support from others who are more competent in this area. I will have to admit that among those interested in clinical immunology, there is often more discussion and theorizing about a variety of diseases than actual involvement in seeing patients. It is likely that more bedside consultations would be requested if one had something unique to offer patients. Being prepared to perform relevant immunologic laboratory tests is one way to provide helpful services.

It may well work out that clinical immunology may develop in a variety of patterns in different communities, depending on local factors. The two main determinants are the special interests and skills of the individuals concerned and the needs of the medical community. For example, allergists are serving on transplantation teams in some places but not others. Where there is a good immunohematologist but the connective tissue experts are not particularly interested in the immunological approach to these diseases, the clinical immunologist might be more helpful in the latter field than the former, whereas the opposite pattern might apply in other places. It does appear that

at this moment in many medical communities there still is a partial vacuum in certain areas of clinical immunology. Whether suitably trained allergists or persons from other fields with special training in immunology will fill these needs is something which will probably be decided in many places within the next few years. This implies that if an allergist wishes to broaden his area of interest in clinical immunology, there is reason to suggest that he prepare himself for such a role *now*, while the pattern of handling problems in many areas of clinical immunology is still being established. Indeed, this is a major reason why I thought this subject might be especially appropriate for the 1965 Presidential Address.

I should also like to add that although some allergists may elect to serve as clinical immunologists, it would be unfortunate if this were done to the neglect of atopic patients. For reasons discussed previously, this very large group of people needs more medical attention, not less. However, I see no reason why a number of allergists could not help take care of some nonatopic patients as well, and if future progress simplifies the care of the atopic, this would be all the more feasible.

We should also consider the role of the Academy in the future development of our field. I think it is inappropriate for any organization to tell the individual doctor what or how to practice. However, if a sizable number of allergists wish to alter the pattern of their professional activities, it would seem appropriate and desirable for the Academy to offer any assistance which it can. It was in this context that I appointed the *ad hoc* Long-Range Planning Committee this year. This group recently had an interesting meeting which lasted well into the night. Whether any concrete actions by the Academy can be derived from this discussion is something which subsequent Academy administrations will have to decide. I should point out that in its postgraduate courses, particularly as they have been organized in the last five years under the leadership of Drs. Frank Dixon and Richard Farr, the Academy already has taken a significant stride toward a broader orientation of its membership.

In summary, I think it is imperative for all of us to accept the fact that we are living in an era of change. *Major* changes may occur in our own area of special interest. The study and treatment of the atopic diseases has been and no doubt will continue to be an interesting pursuit, but it would be unfortunate if we complacently limit our approach to a routine based on a few techniques which may become largely outmoded in the future. Beyond the atopic diseases, the application of the burgeoning field of basic immunology to a wide variety of clinical conditions offers exciting possibilities for those competent for such an undertaking. Many allergists would need additional preparation if they were to choose such a course, but, for reasons stated previously, it would appear desirable to be planning and preparing now. None of the thoughts which I have expressed this afternoon is new or original, and perhaps many would disagree with much of what I have said. Nevertheless, this appears to be a propitious time in the development of our field to emphasize conscious, long-range planning.