

## Thomas Francis, Jr.: An Appreciation

A MAN and a career, an influence and a personality, a human being and a person. Dr. Francis' portrait symbolizes all these for us as it brings to this and future generations a reflection of a spirit which truly moved mountains. In presenting this portrait to the University on behalf of his friends and colleagues, we have special pride and gratitude because he chose to make this school and this university the locus in which and from which he could move. We had the privilege of seeing him under all kinds of conditions, when he was confronting major scientific problems as well as when he was concerned with the intimate details of department and school operations. It was the kind of relationship which makes it natural to refer to him as Tommy Francis—with all our respect and affection.

In some ways his greatest heritage is the influence he had on those he knew, not only in Ann Arbor but throughout the country and the world, where so many were brought into contact with Tommy Francis and were never the same thereafter.

Perhaps more than anything else for those who knew him was the sense of breadth, the all encompassing interest, the curiosity which was indeed insatiable. "Where there is no vision the people perish," said the ancient prophet. The vision that moved Tommy Francis and led him on spread over the broadest range of fields of knowledge and action.

Others have written and more will be recorded on the remarkable extent of the

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Submitted for publication July 6, 1970; accepted July 6.

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Read at the presentation of a portrait of Dr. Francis at the University of Michigan, Ann Arbor, June 29, 1970.

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scientific contributions which stemmed from this vision. Colleagues and intimates tell of his knowledge and appreciation of art, music, literature, theatre. Many will testify to his loyalty to Michigan athletic teams and to his detailed knowledge of averages, performances, and game strategy. Friends and acquaintances all over the world can tell of his quick understanding and keen comprehension of the problems of other cultures.

Rather than attempt the impossibility of even an outline biography of so extraordinary a career, I shall illustrate my thoughts by concentrating on what Tommy meant to us here. The story begins in what is for me hearsay—the invitation from Henry F. Vaughan to join the newly established School of Public Health at the University of Michigan and make it something different. This was the kind of challenge Tommy loved and those first years must have been most exciting and rewarding, giving scope to his innate desire to build and to build strongly an outstanding program of teaching and research.

His professional training and experience had prepared him well for this enterprise. Yale Medical School, when Tommy was there, in the early 1920's, had turned a significant corner in medical education. There he had his inborn craving for new knowledge stimulated and excited by contact with a whole host of restless minds. Controversy, inquiry, and a healthy skepticism for the voice of authority were all around him and experiments in educational methods were the order of the day. The circle of his intimate friends spread even larger as he moved to the Rockefeller Institute and New York University; the decision to come to Ann Arbor must have been difficult.

Once here, he rapidly became a highly significant influence in the university com-

munity; he became even more a national and international figure. Development of the university's virus laboratory was just the beginning; the department was soon concerned with all manner of infectious disease. In 1947 the Regents appointed him to one of the first Michigan distinguished professorships, naming him Henry Sewall University Professor of Epidemiology. His influence spread to the Medical School and the Department of Pediatrics was fortunate to attract him to its faculty.

Long time interest and accomplishment in studies of influenza and virus infections of the respiratory tract were logically complemented by study of the enteric viruses. His approach to polioviruses was informed with the true spirit of analytic epidemiology and it was a natural step for him to be entrusted with the titanic and crucial task of evaluating the Salk vaccine field trials. The story of these trials and of Tommy's role is well known and extensively described in the literature. Yet a passage in the book *Break-Through* by Richard Carter epitomizes for me his relation to this landmark in the history of disease control:

To discourage public doubt . . . and, above all, to guarantee that his own time would not be dissipated on a project susceptible to doubt, Francis had driven a hard bargain with Basil O'Connor. The field study was pure Francis. He designed the double-blind section of the study exactly to his tastes and required that the . . . observed-control section be conducted with meticulous attention to rules of his devising. As he had remarked and as O'Connor had agreed during their negotiations, the paramount requirement was that the evaluation be entirely independent of external influence. A subsidiary requirement was that no word or deed of the National Foundation mislead the scientific community on this score. Francis' independence had to be conspicuous and authentic.

This was the kind of independence and integrity which characterized all of his life.

Events in the decade and a half which have passed since this epoch-making report have verified many times over the accuracy of Tommy's work and the beauty of his telling analysis.

All this was in the past when, at the time of Dean Vaughan's retirement, Tommy agreed to chair the Search Committee for a

successor. It was in this capacity that he and I developed more than a casual acquaintance and it was through these contacts that I learned at first hand from him of Tecumseh and his vision of a comprehensive study of a whole city. This was really the grand design, the concept of a community laboratory which could take advantage of geography, history, and local culture to lay the basis for accumulated data from which it would be possible over a period of years to draw secure inferences on disease precursors. I recall so well the soberness of his description, soberness which could not mask the underlying excitement of the scientific dream.

The process of preparing the application for federal support of the resultant University of Michigan Center for the Study of Diseases of the Heart and Circulation and Related Disorders revealed another facet of this extraordinary man—his ability to write and express himself in terms that were lively, clear, and straightforward, yet showed all the elegance of superior English prose. I had, of course, previously read published papers but it was a delight to watch him at work, changing, polishing, rewriting until he was satisfied. He loved the purity and cadence of well written English, as was evident in the catholicity of his reading tastes. I benefited from time to time as he told me of things he had read and liked; I found myself rarely disagreeing with him. I benefited also from the caliber of his contributions to my annual report, of which I shall give an example.

Tecumseh and Tommy's own contributions to the epidemiology of chronic disease and understanding of noninfectious factors were but further examples of his eminence as a true scientist, investigator, and innovator. All this is so extensively documented that it would be presumptuous of me to undertake any critique or assessment of his scientific standing. As I mention only the Lasker Award and the Henry Russell Lectureship, I do injustice to dozens of other outstanding recognitions, outstanding recognitions which have tangibly recognized this eminence. Nevertheless, because so many here may not know of them, I mention only the three posthumous awards made to Dr. Francis. A special plaque from the World Health Organization for distinguished contri-

butions to the prevention and control of influenza, the Bristol Award for distinguished service from the Infectious Diseases Society of America, the prestigious Jesse Stevenson Kovalenko Gold Medal for outstanding research in medical science from the National Academy of Sciences, of which Tommy had been a member for many years.

Those who knew Tommy as a teacher had a rare experience. Never a flamboyant or spellbinding lecturer, his influence on students came from interaction with his intellect in class. His painstaking preparation was evident in the depth of content, the clarity of exposition and the convincing logic of the argument. No group received a second class presentation. The goal of excellence was never absent.

But it is in the field of "administration" that I found Tommy a most interesting, tantalizing, and sometimes trying character. He took his departmental responsibilities seriously. Needed information was supplied on the dates specified, although sometimes, to be sure, with much grumbling. Every meeting was attended scrupulously, and the little brown notebook was always evident to record what he could not always classify as pearls of wisdom. Activities in his department were carefully scrutinized and there were few aspects of investigative and teaching activities of which he was not aware. I do not believe, however, that he ever considered this to constitute "administration," for which he reserved a special attitude, which everyone knew was, to say the least, not entirely complimentary. His sense of oppression by the genus *Administrator*, *maximus* or *minus*, moved him at one stage to comment so forcefully that I quoted him at length in my annual report for that year.

Comprising, as epidemiology does, a wide gamut of research, from molecular biology to medical ecology, constant attention is required to assure that the fundamental philosophy and the academic mission are not lost in diversity. A restatement of the aims is to emphasize the search for understanding of the origins and the factors influencing the occurrence and distribution of disease and disorder in the community. The ultimate objective is prevention and control. Whether the provocative factors are inherent in the population through their genes, their cells, and their parasites; whether they are failures to meet environmental influences of

social, physical, or biological nature they constitute the concern of the epidemiologist. Hence, a variety of approaches is necessary if we are to prepare our students and our scientists to move forward in exploration of obscure and complex situations created by a heterogeneous population in a rapidly shifting environment. Consequently, epidemiology must constantly seek imaginative and ingenious teachers and scholars to create a new genre of medical ecologists who, with both the fine sensitivity of the scientific artist, and the broad perception of the community sculptor, can interpret the interplay of forces which result in disease. The department, then, must seek to maintain this sense of coherence and faith in its objectives and to instill them into the explorers of the future.

In this endeavor the Chairman of the department finds serious obstacles. The number of sources of regulatory edicts has multiplied unconscionably; every agency in the University and elsewhere descends upon him with demands—to a large part unessential—which they consider evidence of good administration because they have passed them down. Funds for research become a hazard rather than a promise of opportunity because so many creatures want to manage them and him. The volume of reports, regulations, missives, and other forms of waste paper has passed a new high. Time for the teacher as a thinker, for the academician as a scholar is steadily being dissipated. This is not proper and a change must take place if the gifts for teaching and research are not to be suborned by administrative subordinates. But still the effort continues with hope and optimism that the abrasives of the wheel will wear out first.

As I commented in the report:

Prof. Francis' Macedonian cry will fall on sympathetic ears. His eloquent plea that the scientists be relieved of futile and unrewarding drudgery and harassment poses a dilemma of no mean proportions for the administrator who recognizes that his fundamental task in a scientific institution is to provide the environment and supporting services in which the scientific artist and the community sculptor can best exercise their sensitivity and perception. . . . Solution of this very problem requires research, of a different character, to be sure, but demanding as much of a combination of perseverance, inventiveness and rigorous attention to facts as any laboratory exercise.

Governance of the school and university seemed to Tommy quite a different but very acute source of preoccupation. Faculty meetings and committee assignments were high

priority items. Proposals for changes in school policy, for new courses or programs, for statements of position all received careful scrutiny. And it will surprise no one that Tommy never, but never, went along with a position—however popular—unless he was satisfied it was correct. I remember ruefully one instance when, with the concurrence of an ad hoc committee and the Executive Committee, I brought a proposal for change before the Governing Faculty. After discussion and no apparent opposition, it seemed about to be passed overwhelmingly when Tommy rose to question the basis of the proposal and to speak against it. At the end of a brief but lively interchange, he had swung the majority to his way of thinking and, to the temporary discomfiture of the Dean and the Executive Committee, the proposal was roundly defeated.

More recently, at the point of an academic career when others might have relinquished the development of new ideas to younger colleagues, Tommy was in the forefront of those who took part in building our integrated core course. He took vigorous part in all the Haven Hill planning and evaluation conferences and was acutely aware of the gains as well as the liabilities. He showed a fascinating combination of intolerance for what he did not classify as hard science and ready acceptance that these subjects had to be taught and taught well. Not the least important aspect was his leadership in revising and adapting departmental offerings to complement in better fashion the core course concept.

He was equally intensely concerned over the recent upsurge of student involvement in university and world affairs. It seemed to him unquestionably desirable that students be more active in this respect, although he demanded standards of logic and reasonableness that the younger generation might not always accept. At the same time, he felt himself so much a part of the action that, for example, when the first teach-in took place on the Ann Arbor campus, he attended a substantial part of the all night session and participated vigorously. He believed strong-

ly in the concept of a community of scholars and thought that students and faculty working together could, indeed, change the world.

Finally, I come to an aspect of Tommy's character which I think you will see in the portrait, his interest and concern for each individual person among his fellow men. I knew Tommy could be tough, hard, and could drive people sometimes beyond what they thought they could bear. But everyone knew that he never drove anyone else harder or farther than he would drive himself. Everyone knew that Tommy would be as pitilessly critical of the work of his most senior colleague as he was of the junior associate. But not everyone knew of his concern for the well-being of each of them. I saw this in a personal way when, despite his own ills, he would look into my office to say, "How are you? You look tired; can I do anything?"

It is this spirit of personal involvement which this portrait will help to keep before us. It is this spirit that even today makes me stop and think and wonder as to how he might have reacted on a particular proposal. It is this spirit which we can hand on to new generations who can take lessons from Tommy Francis' contributions. He would never have tolerated any adjuration that young men should slavishly emulate him, but I am sure he hoped they might learn from his example.

I am sure Tommy looked forward to the day when one of his students would surpass him in a particular field and would know in his own heart that Tommy had had a significant part in starting him on the path to a high level of knowledge and accomplishment. Tommy would have liked the words of Valiant in *Pilgrim's Progress*: "My sword I give to him who shall follow me in this pilgrimage and my courage and skill to him who can get it. My marks and scars I carry with me."

*Mr. President, it is my signal honor, on behalf of friends, colleagues, and admirers everywhere, to present to the University of Michigan this portrait of a great man, Thomas Francis, Jr.*

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