

Robert Wood Johnson Foundation: Planning for a Metamorphosis

Last week the Robert Wood Johnson Foundation moved its offices from New Brunswick, New Jersey, to Princeton, a minor sign of the major changes that have befallen it since receiving the billion-dollar bequest from its founder, the late Robert Wood Johnson, dominant figure in Johnson & Johnson.

The foundation has existed since the middle 1930's, but has given away a relatively modest total of \$5 million since then, mostly in grants to local hospitals and other institutions in which Johnson was interested and in funds for scholarships. Now, with the settlement of Johnson's estate—he died in 1968—Johnson & Johnson stock worth over \$1 billion, amounting to virtually the entire estate, has gone to the foundation, making it the second wealthiest American private foundation after the Ford Foundation, which has assets of about \$3 billion.

In December, when the magnitude of the bequest was made public, it was announced that the foundation would operate nationally and would concentrate its activities in the field of health. A survey of foundation grants above \$10,000 last year indicated that some \$155 million, or about 15 percent of the total money disbursed by foundations, went to grants in the health field. [Health ranks after education (32 percent) and welfare (16 percent) among categories to which foundation funds are directed.] Since, under new legislation, the Johnson Foundation will be required to distribute about \$45 million a year, Johnson grants should augment foundation funds available in the field by a whopping one-third.

At the same time, the foundation announced the appointment, as its full-time president and administrative head, of David E. Rogers, former dean of Johns Hopkins medical school. Rogers, 45, took his medical degree at Cornell and, in the late 1940's, did his residency in internal medicine at Hopkins. Before returning to Hopkins as dean in 1968, he had spent a decade at Vanderbilt medical school, making

his mark there as chairman of the department of medicine.

News of the foundation's bonanza naturally attracted a flood of applications and relays of supplicants to the frame house in New Brunswick that served as foundation headquarters in quieter times. Action on these requests, however, has been at least deferred until a core staff has been selected and several months of planning have produced a program for the foundation.

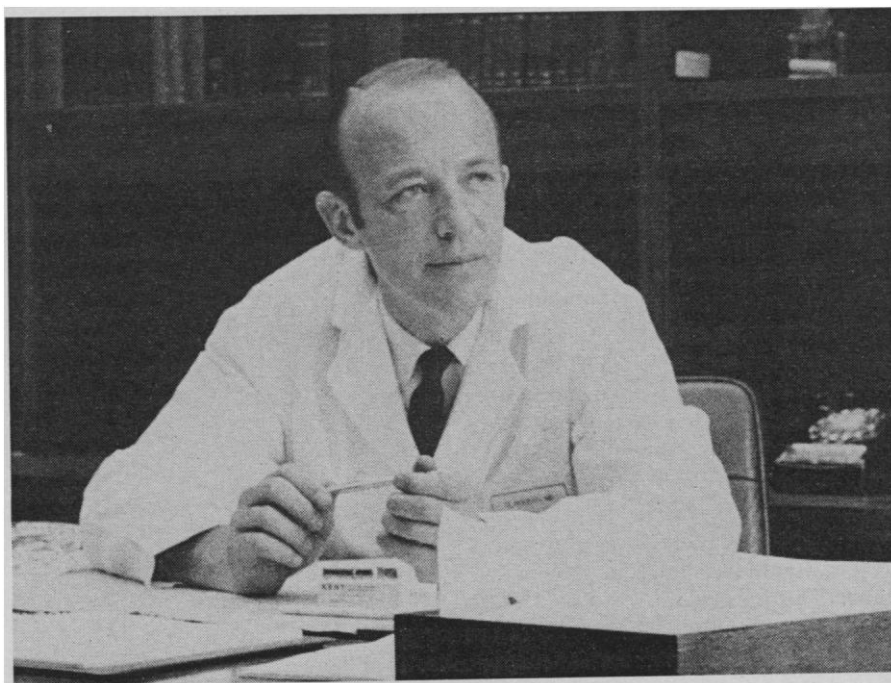
Rogers, who took up his post in January, says that initial news stories defined the interests of the foundation too narrowly in indicating that it would stress the area of health care delivery. He said the foundation in fact will be interested in "the broad area of health. . . . I think we will be interested in the education of health professionals, including allied health workers, dentists, nurses, and so on. We'll also be interested in the pre-professional [education] system. And I think we'll want to look at the different parts of the health system, at how

hospitals function, at interactions between the trustees and the staff, and at new experiments in group health delivery systems."

At this point, it is perhaps clearer what the foundation will not be doing. It is not going to make grants for capital expenses, endowments, or ongoing operating expenses, says Rogers. In the main, it will not fund basic biomedical research, nor will it fund individual grants, preferring to support individuals through institutions. At least at the beginning, the foundation will confine its grants to the United States.

The pressure to start disbursing funds has, of course, been increased by the Tax Reform Act of 1969, which requires that private operating foundations each year distribute an amount equal to its income or to 4.5 percent of the market value of its assets. The payout level rises to 6 percent in 1975. In addition, the act levies a tax of 4 percent on net investment income. The foundation could take advantage of a grace period until 1973 before starting to make grants, but then would have to double its payout for a year.

It appears that the Johnson Foundation may follow the example of the Ford Foundation, which in its early days made large grants that did not require extensive staff work. The Johnson Foundation, for example, could pump funds into support of medical students and others training in the health professions and provide



David E. Rogers

funds for support of medical school programs at a time when there is a funding gap that the federal government has not filled. The Johnson Foundation is also receiving fraternal advice from other operating foundations with experience in the health field such as the Carnegie Corporation, the Commonwealth Fund, and the Rockefeller Foundation, and it is not inconceivable that Johnson might pick up some projects that the others recommend. As Rogers says, "higher-risk things will come later."

Rogers says he feels that the new tax legislation does not put crippling constraints on foundations wishing to back innovative projects, but it does make it more important that organizations using foundation funds have "good accountability mechanisms."

"Good Preparation"

As a medical school dean, Rogers had a reputation for successfully extracting funds from foundations. Now having crossed over, he thinks that a deanship was "pretty good preparation for the job." The modern medical school is involved in almost all the ramifications of health professions training and health care. Therefore, as a former medical school dean, Rogers comes to the foundation with an understanding of the institutions with which the foundation will deal, the more so, perhaps, because of a fairly rough passage as Hopkins dean.

Observers sympathetic to Rogers say he came to Hopkins with a strong commitment to strengthening health care services, particularly to seeing the medical school accept a bigger role in the East Baltimore black community where the medical center is located. Rogers proposed initiatives that were fairly common at the time at other medical schools, but which, as one witness says, "were considered radical innovations at Hopkins."

Johns Hopkins has a long tradition of turning out graduates headed for careers in academic medicine. Rogers arrived at a time when the university was entering a period of financial and administrative difficulties which eventuated in a faculty revolt forcing the resignation of President Lincoln Gordon. Rogers, therefore, not only bucked tradition, but did so in a troubled institution.

Rogers won some and lost some. He was successful in a contest to increase the size of the medical school class

from 95 to 115, but lost out in an early effort to replace a powerful department chairman. Other major contests produced mixed results. Outreach programs were established both in East Baltimore and in the planned city of Columbia between Baltimore and Washington, but this was accomplished against stiff opposition. The process of setting up the projects was clearly a learning experience for the new dean and, as he later conceded in a speech, in "retrospect the failure to involve the faculty and the rest of the Hopkins staff at all levels early in the deliberations was an almost fatal mistake." He did find a way, however—mainly by raising funds from outside sources and bringing in professionals to staff the program.

Hopkins, like many other medical schools at the time, was weighing the merits of setting up a department of community medicine. While sympathetic to the purposes of such a department, Rogers says that he "thought after sizing up the situation that [creating the department] would be the worst thing we could do. We had well-staffed clinical departments and strong chairmen, and they would have said, 'go ahead, you're on your own.'" Rogers says he has observed that community medicine departments often attract people who have not really achieved distinction as physicians. The solution at Hopkins was to set up an office of health care programs that could "infiltrate" the regular departments and recruit good people interested in community medicine programs.

An effort to expand the training of allied health personnel was opposed by traditionalists, who feared a diversion of attention and funds from basic sciences and the conventional education of physicians. A new school was subsequently set up within the medical school, but it has not yet been substantially financed.

All of these campaigns, plus the ill feeling generated at the time of Gordon's resignation, apparently contributed to Roger's own decision to resign the deanship; but along with the wound stripes he certainly obtained a first-hand acquaintance with some of the major issues troubling health care institutions these days.

In retrospect, Rogers tends to minimize the traumas of the period, suggesting that the strains were functions of the difficult situation in which medical schools find themselves. He says

that a press account indicating he was "trampled by conservative elements" was overdone, and notes philosophically that "conflict is an important element of change."

Now that Rogers has made the transition from dean to president of a foundation, and a very big foundation at that, a major problem could be the emperor's-new-clothes syndrome. Rogers says he recognized the dangers of isolation in the foundation's front office and that he is "determined not to lose contact." He feels that "one of the secrets is to have an operational role, to maintain touch with people of the firing line." To this end, for example, Rogers, on the afternoon of an interview with *Science*, was scheduled to go to New York to speak at a university seminar and had arranged to go on to make rounds with medical students and residents at the university hospital.

Resettlement in Princeton

Resettlement of the foundation in Princeton was done out of mixed motives. The Johnson trustees agreed that, since the foundation operations would now be national in scope, it would be desirable to dissociate it from Johnson & Johnson in New Brunswick, so that the foundation would not be regarded as an adjunct of the company. The board members, however, felt it appropriate that the foundation stay in New Jersey, where its funds originated, and to continue in a limited way its New Jersey philanthropies. The decision to stay out of New York and the midtown Manhattan Fifth-Madison-Park avenue foundation district was deliberate. The feeling was that "too much of the money base was in New York," and that there is too much of a tendency for foundation officers to "talk only to each other." The Princeton location was looked upon as having positive pulling power for staff, especially for staff members with young children, who might be daunted by the costs and problems of working and living in New York. The foundation has leased space in a building on Princeton University's Forrestal science campus about 2 miles from the center of town. An obvious attraction for the foundation is the intellectual community, as well as the exurban setting.

A foundation is often decisively influenced by its trustees, and the Johnson trustees typically have had professional ties to Johnson & Johnson and personal loyalties to the founder.

Chairman of the foundation's board is Gustav O. Lienhard, a retired chairman of the Johnson & Johnson board and president and treasurer of the foundation until Rogers took over as president.

Rogers says he found the members of his board extremely knowledgeable about hospital and medical center operations and also about universities, since most have substantial experience serving on college and university boards. He notes that they bring their corporate backgrounds and university board experience into play as trustees. When Rogers suggested, for example, that the foundation be set up organizationally on the lines of a university administration, the board members made it clear that, based on their observations, "they were not terribly impressed with the suggestion. They took the argument and hit me over the head with it."

Outsiders say the board is likely to be expanded, with new members se-

lected to help with the foundation's broadened program, but that the trustees are, and will likely continue to be, a pragmatic and hardheaded group.

It will no doubt be several years before the Johnson Foundation defines its style and establishes its effectiveness, but, even considering the dimensions of health care problems today, the Johnson Foundation has the resources to do more, metaphorically, then apply a Band-Aid.—JOHN WALSH

RECENT DEATHS

Charles F. Angell, 52; professor of engineering, Wentworth Institute; 15 November.

Edward F. Barta, 82; professor emeritus of pathology, Medical College of Wisconsin; 5 November.

Harry A. Charipper, 71; professor emeritus of biology, New York University; 17 November.

Edwin A. Christ, 54; professor of sociology and anthropology, Westminster College; 15 October.

M. Raymond Collings, 75; former professor of anatomy, Wayne State University; 19 October.

Conrad G. Collins, 64; professor of obstetrics and gynecology, Tulane University; 14 December.

Robert A. Davis, 71; former professor of educational psychology and research, George Peabody College for Teachers; 31 October.

J. W. Egiazaroff, 78; hydroelectric engineer and mathematician, Armenian Academy of Sciences; 10 June.

Emmanuel Fauré-Fremiet, 88; cytologist, electron microscopist, protozoologist and professor emeritus, Collège de France; 6 November.

Irving W. Finberg, 60; professor of engineering, Miami-Dade Junior College; 3 October.

Leonard D. Garren, 43; professor of medicine, University of California, San Diego; 31 October.

RESEARCH NEWS

Nuclear Explosion Seismology: Improvements in Detection

Nuclear explosion seismology has come a long way since 1958 when a committee of experts met in Geneva to consider the best means of detecting violations of a comprehensive test ban treaty. At that time not much was known about seismic signals generated by underground nuclear explosions—only one shot had been detonated. Now several dozen shots have been analyzed in detail, and the original ideas of how to detect and distinguish the seismic signals of explosions from those of earthquakes have been superseded.

Some experts now believe that explosions in hard rock with yields as small as 2 kilotons could be identified on a global scale with no more than a dozen high-quality seismograph stations. But in 1958 there seemed to be little prospect, according to some seismologists, of identifying shots with yields smaller than 50 kilotons at distances greater than 2500 kilometers from the center of the blast. On the basis of these more pessimistic assumptions, 180 stations would have been needed to police the globe.

The negotiations for a comprehensive test ban treaty reached an impasse when the United States and the U.S.S.R. could not agree on the importance of on-site inspections. The United States negotiators felt that on-site inspections were necessary when seismic data could not distinguish the origin of a suspicious signal. The Russians would not acquiesce. Each government has maintained this posture for over a decade.

When the partial test ban treaty was signed in 1963, it covered nuclear tests in the atmosphere, in space, and in the oceans, but there was no agreement on underground explosions because of the differences about on-site inspection. With the improvements in theory and instrumentation during the past decade, some observers now believe that the position of the United States could be changed without any fear of deception. According to Robert Nield, former director of the Stockholm International Peace Research Institute (SIPRI), weapons tests with yields lower than 10 kilotons would be of little advantage to a nuclear country, and any larger un-

derground explosions would surely be identified—either remotely by seismic signals or by spy satellites or locally by old-fashioned espionage.

There are four basic elastic waves of use in the problem of identifying underground explosions—two kinds of body waves and two corresponding surface waves. On a conventional seismograph the first signal is usually due to a fast-moving body wave known as a P wave—for primary. The P waves are acoustic waves; the displacement of the particles in the ground is along the waves' direction of travel. The P waves provide the signals used to determine the direction of the first motion from an earthquake.

The other type of body waves are shear waves; they are called S waves—for secondary. The velocity of S waves is lower than that for P waves, and the direction of the ground motion is perpendicular to the direction of travel. A liquid material cannot maintain S waves because it has no restoring force. Explosions should produce weak S waves because all of the energy initially goes