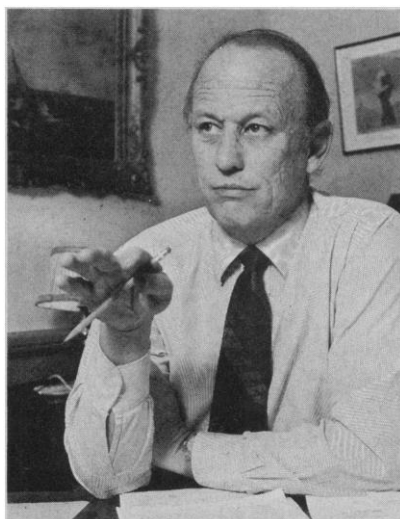


Fredrickson To Be VP of Hughes Institute

Donald S. Fredrickson, former director of the National Institutes of Health (NIH), has been named a vice president of the Howard Hughes Medical Institute. According to Hughes president George Thorn, professor emeritus at Harvard, the 30-year-old Institute now spends about \$20 million a year on research at 12 U.S. medical centers. Fredrickson's first assignment is to undertake a "complete review of the research program and administrative operation," Thorn told *Science*.

Such a review is needed in particular because the Institute has yet to finally resolve a long-standing battle with the Internal Revenue Service (IRS) over whether it should be legally defined as an "operating institute" or a "private foundation" (*Science*, 19 January 1979, pp. 250-252). The Institute, which owns 100 percent of the shares of Hughes Aircraft, currently spends its aftertax revenues on research. Were it to be ruled a foundation, it would have to divest itself of some of the Hughes stock and spend at least 6 percent of its net worth every year on research. The Institute, which long operated under a shroud of secrecy akin to that of the late billionaire recluse, has no interest in giving up ownership of Hughes Aircraft or in operating as a foundation. According to Thorn, the issue is close to resolution. "The IRS now says we qualify as an 'institute,'" he says, but the ruling is not final. Therefore, it is crucial that the Institute adopt an operating style that satisfies the IRS.

At present, the Hughes Institute supports researchers—whom it insists on describing as "employees"—in the fields of genetics, metabolic disorders, and immunology at campuses including Harvard, Yale, Johns Hopkins, and the University of California at San Francisco. Within the next year or two, the Institute, which hand-picks its researchers and does not accept routine applications, plans to expand into the neurosciences. It also plans to enhance its "operating institute" status by building or renovating laboratory space at those select universities where its "employees" work as faculty. Approximately \$18 million



Eric Poggenpohl

Donald Fredrickson

His review could help Hughes with the IRS.

in capital expenditures will be allocated in the next 3 years, reports Thorn, adding that "Hughes Aircraft is doing very well."

Fredrickson, who described the Institute as "trying to capture a sense of itself," intends not only to review its present research programs, but also to think about ways in which Hughes, as a "private organism" can best relate to the academic world. Since leaving NIH in June 1981, Fredrickson has been a scholar-in-residence at the National Academy of Sciences, where he shepherded a study on "Government-university relationships in support of science," to be released this spring. Headquarters for the Hughes Institute are in Miami; Fredrickson will remain in the Washington, D.C., area.—**BARBARA J. CULLITON**

Biotech Firm Biogen Is Going Public

The genetic engineering company Biogen, headed by Harvard biologist Walter Gilbert, plans to go public and will offer 2.5 million shares in hopes of raising at least \$55 million. The money would be used mainly to finance the clinical testing and development of interferon, a blood clotting agent, and a vaccine against foot-and-mouth disease.

Biogen filed a preliminary prospectus on 7 February with the Securities and Exchange Commission. It will be at least several weeks before the

shares of common stock will be on the market.

According to the document, the international company is significantly shifting its business strategy. In the past, it has struck agreements with several other larger, established companies to research and develop products. Now Biogen says it wants to retain more rights to produce and market the products it develops.

To date, Biogen, like most other biotechnology companies, has not yet developed any commercial products. According to the preliminary prospectus, the company expects to incur a loss of several million dollars during the first quarter of 1983. Its assets for fiscal 1982 were \$73.5 million, a loss of about \$5 million from the previous year.

Wall Street may leap at the stock offering, given the company's staff of research superstars, but, then again, investors have become much more sober and sophisticated about gene-splicing companies. They now more closely examine the companies' business and scientific expertise.

In the case of Biogen, two top management positions have changed hands during the past year. In April, the president of the Swiss subsidiary, Robert E. Cawthorn, resigned to join the drug manufacturer Rorer International Corporation. In December, Robert A. Fildes, president of the U.S. division in Cambridge, Massachusetts, resigned to join Cetus, one of the company's major competitors.

The scientific staff, however, remains stable. Gilbert, 50, has been chairman of the board since Biogen was founded in 1978. Gilbert also has retained a position at Harvard's Department of Biochemistry, despite faculty criticism in 1981 of his concurrent job with Biogen. He presently has the title of "senior associate" at the university where he still conducts research and advises students.

Biogen is devoting much of its efforts to develop several interferon products. In particular, it plans to spend about \$10 million raised from the stock offering for studies on human immune or gamma interferon. It is already testing the substance in tissue culture and plans to begin preliminary clinical trials in Europe early this year. Biogen, however, faces stiff competition from Genentech which was the first to report the expression