

INSTITUTE FOR ENZYME RESEARCH



Fig. 1. The Enzyme Institute, 1997. The older section is at the right, the newer at left. [Del Brown photo, AP-27]

The enzyme institute was founded in 1947 in the old WARF laboratories with the work of Dr. David E. Green. The current building was built in 1948, with additions in 1959 and 1968. It has housed such world renowned researchers as Conrad Elvehjem, David Green, and Nobel prize-winning Dr. Har Gobinder Khorana.

The germ of the idea for a world class research institute to investigate the fundamental chemistry of biological life, came in a letter to the Rockefeller Foundation, from Dr. C. G. King, biochemist, and discoverer of vitamin C. Dr. King set forth the opinion of leading biochemists and cancer researchers that a central institute for enzymology was needed to replace the great research centers in that field destroyed in Europe during WW II. Dr. King further suggested that the University of Wisconsin "seemed to offer the best promise for the development of such an institute, and I am sure that Dr. C. A. Elvehjem and Dr. Van Potter would be interested in such a project and could give it excellent supervision." This letter was written in October 1945. Dean Fred found university faculty enthusiastic about such an institute.¹

After the Rockefeller Foundation asked for information concerning developments in the field of enzymology, Fred asked Conrad Elvehjem to prepare a statement. This statement, delivered on September 19, 1946, stated that Elvehjem and Dr. Van Potter discussed in late 1945 the need for an institute for the post-doctorate training in enzymology. They believed that Wisconsin was a logical site for the foundation. The committee recommended that a dedicated building be erected along Henry Mall, in order to make it central to the schools of medicine and agriculture with which it would be most closely allied. They estimated costs at \$500,000-\$750,000 for the building, and an annual budget of \$200,000 for six teams of researchers.²

To staff the institute, Dr. Potter began to woo Dr. David E. Green of Columbia University. Green, who had been at Cambridge and Harvard, had recently organized the enzyme research facility at Columbia, and was a world recognized researcher in the field. To house Dr. Green's

work until the new building was ready, space was provided in the old Wisconsin Alumni Foundation (WARF) laboratories. Green began his work in the old labs in June 1947.³

In July of 1947, President Fred appealed to WARF. Fred estimated that the scaled down, and relocated enzyme institute would cost \$250,000-\$300,000. He asked WARF to lend money on the same terms as for the biochemistry addition. On July 18, 1947, the WARF trustees voted to approve a loan not to exceed \$300,000 for the enzyme building.⁴

Plans proceeded through late 1947 and early 1948. Architect Lewis Siberz had final plans drawn by March 1948. The regents executive committee approved the awarding of contracts for the building. The general contractor was George Nelson and Son of Madison for \$187,397. Total contracts were for \$350,000. In late 1947 the site for the building had been moved from the Henry Mall site to a parcel west of the naval ROTC building on University Avenue. This .2 acre parcel had been donated to the university by WARF in August 1946. Some of the Henry mall site was privately owned, and it was already intended as the location for the state hygiene lab; making the enzyme institute part of the hygiene lab was discussed but judged too difficult and disruptive.⁵

Ground was broken in the summer of 1948. The laboratory was opened on November 1, 1949. The building was a 90' X 50' three story brick building. The main entrance was on the west side of the first floor. Heat was brought from a new boiler installation in the naval ROTC building. The first occupants were the research teams of David Green and Henry A. Lardy. This gave the new institute two of the top enzyme researchers in the world. In April 1948, the Rockefeller Foundation granted the university \$100,000 to help equip the new institute. For almost ten years the institute's work went forward under these two team leaders, then as the work progressed they decided to add more teams.

In 1957, after WARF made a grant of \$300,000 for additional space at the enzyme institute, the regents voted to apply to the federal National Institute of Health (NIH) for a matching grant for construction and equipage of an addition to the enzyme institute estimated to cost \$600,000. By April 1958, the NIH had granted the request for matching funds. The regents approved the plans for the addition in August 1958. The plans were done by Siberz-Purcell-Cuthbert of Madison, and consisted of a two story brick and stone trimmed addition on the west side of the existing lab, with a two story connecting link between the old and new section; the front entrance was moved to the west wing. Ground breaking was July 10, 1959. The total space in the institute was more than doubled at a cost of \$600,000. The institute now added three new research teams. The new teams were headed by Drs. H. G. Khorana, Helmut Beinert, and Louis Gosting.⁶

This space was sufficient for about another decade. In 1968, Dr. Khorana became the university's second (to Joshua Lederberg) Nobel prize winner for his work in gene synthesis. Planning had already begun for more space when the prize was awarded. After a series of meetings with the team leaders and campus planners, it was decided to expand the facilities by adding three floors to the west wing and connecting link. These plans were done in 1967 by Ames-Torkelson of Madison. When finished the facility comprised more than 65,000 square feet. The cost of the addition was \$1.7 million. Dr. Khorana left the university in 1970.

1) Memorandum concerning the development of the Enzyme Institute, E. B. Fred to the regents, April 17, 1948. *Wisconsin State Journal*, December 1, 1968.

2) Memorandum concerning the development of the Enzyme Institute, E. B. Fred to the regents, April 17, 1948; *UW Staff News*, July 1949; *Wisconsin State Journal*, April 17, 1948;

4) Fred to Haight, July 16, 1947; *Kenosha News*, August 18, 1947;

5) A. W. Peterson to Fred, July 25, 1947, *Executive Committee minutes*, May 6, 1948; Regent's Minutes, May 28, 1948; *Wisconsin Alumni Magazine*, December 1947 p. 5, December 1948, p. 18, August 1948, p. 7, October 1949 p. 5; December 1949, p. 6,

6) *Regents Minutes*, July 13, 1957, March 15, 1958, June 9, 1959; *Daily Cardinal*, July 16, 1959; *Executive Committee minutes*, July 11, 1958;