Form No. 10-300 (Rev. 10-74)

Theme: Americans at Work
Subtheme: Science and Invention

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR NPS USE ONLY
RECEIVED
DATE ENTERED

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC
Parke-Davis Research Laboratory

AND/OR COMMON
Building 55-Detroit Research

2 LOCATION

STREET & NUMBER
Foot of Joseph Campau at the River — NOT FOR PUBLICATION

CITY, TOWN
Detroit — VICINITY OF — CONGRESSIONAL DISTRICT 13th

STATE Michigan — CODE 26 — COUNTY Wayne — CODE 163

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
__DISTRICT	__PUBLIC	X OCCUPIED	__AGRICULTURE	__MUSEUM
X BUILDING(S)	X PRIVATE	__UNOCCUPIED	__COMMERCIAL	__PARK
__STRUCTURE	__BOTH	__WORK IN PROGRESS	__EDUCATIONAL	__PRIVATE RESIDENCE
__SITE	**PUBLIC ACQUISITION**	**ACCESSIBLE**	__ENTERTAINMENT	__RELIGIOUS
__OBJECT	__IN PROCESS	X YES: RESTRICTED	__GOVERNMENT	X SCIENTIFIC
	__BEING CONSIDERED	__YES: UNRESTRICTED	__INDUSTRIAL	__TRANSPORTATION
		__NO	__MILITARY	__OTHER:

4 OWNER OF PROPERTY

NAME
Parke, Davis and Company, Joseph D. Williams, Pres. and Chief Executive Officer

STREET & NUMBER
Foot of Joseph Campau at the River

CITY, TOWN
Detroit — VICINITY OF — STATE Michigan

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.
Wayne County Registry of Deeds

STREET & NUMBER
100 North Fifth Street

CITY, TOWN
Detroit — STATE Michigan

6 REPRESENTATION IN EXISTING SURVEYS

TITLE
Michigan State Register of Historic Places

DATE
1974 — __FEDERAL X STATE __COUNTY __LOCAL

DEPOSITORY FOR SURVEY RECORDS
Michigan History Division, Department of State

CITY, TOWN
Lansing — STATE Michigan

71

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
X EXCELLENT	__ DETERIORATED	X UNALTERED	X ORIGINAL SITE
__ GOOD	__ RUINS	__ ALTERED	__ MOVED DATE_____
__ FAIR	__ UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

Building Number 55, Detroit Research, as Parke, Davis, and Company today calls its Detroit research facility, is a three story brick building measuring approximately 120' x 40'. The building was constructed in 1902. The architect and builder are unknown. The building is an example of public architecture of the period. It is not noted in architectural surveys of important Detroit properties.

Detroit Research was the first industrial laboratory in the United States built for the specific purpose of conducting pharmacological research. The large number of bays, approximately 27, are conducive to well lighted working areas in the laboratories. The sandstone arched main entrance is the most interesting feature of the building. The rhythmic repetition of the coining is an additional interesting feature as is the small cupola with its onion dome. Over all the building presents a well built and sold appearance. All three floors on the interior are divided into laboratories and offices. Although the interior partioning has undergone changes over the years, no significant alterations have taken place.

The original Parke-Davis research laboratory was built on the site of the present building in approximately 1873. This building was torn down when the present facility was constructed. Detroit Research has functioned as a research facility from 1902 to the present day. In 1941 an addition was made to the building by attaching a wing to the north end. Architecturally the wing harmonizes with the main structure. With the exception of the addition of the wing the main structure has undergone no alteration since its construction.

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
__PREHISTORIC	__ARCHEOLOGY-PREHISTORIC	__COMMUNITY PLANNING	__LANDSCAPE ARCHITECTURE	__RELIGION
__1400-1499	__ARCHEOLOGY-HISTORIC	__CONSERVATION	__LAW	X SCIENCE
__1500-1599	__AGRICULTURE	__ECONOMICS	__LITERATURE	__SCULPTURE
__1600-1699	__ARCHITECTURE	__EDUCATION	__MILITARY	__SOCIAL/HUMANITARIAN
__1700-1799	__ART	__ENGINEERING	__MUSIC	__THEATER
XX 1800-1899	__COMMERCE	__EXPLORATION/SETTLEMENT	__PHILOSOPHY	__TRANSPORTATION
XX 1900-	__COMMUNICATIONS	__INDUSTRY	__POLITICS/GOVERNMENT	__OTHER (SPECIFY)
		__INVENTION		

SPECIFIC DATES 1902 to present BUILDER/ARCHITECT unknown

STATEMENT OF SIGNIFICANCE

Pharmacology, the study of the changes produced in animals by chemical substances and especially the study of drugs used in treating diseases, has long been an important area of pure or basic science research. In the United States the development of pharmacological research began after the Civil War in the medical schools and in the laboratories associated with the drug companies. Along with the electrical and chemical industries the drug companies were among the first industries to introduce the pursuit of basic research as company policy. The industrial leader in the development of pharmacological research in the United States was Parke, Davis, and Company of Detroit, Michigan. When in 1902 Parke-Davis built the first industrial laboratory devoted exclusively to pharmacological research, the facility marked the institutionalization of a pure science research activity which has been responsible for many of the "wonder drugs" that are today taken for granted.

Parke, Davis, and Company

Park, Davis, and Company was born October 26, 1866, in a small drugstore in Detroit, Michigan. The founders of the company were Dr. Samuel P. Duffield, a local physician and pharmacist who also manufactured drugs, and Hervey C. Parke, a successful hardware merchant. In 1867 George S. Davis, a businessman with experience in the wholesale drug business, joined the company. In 1869 Dr. Duffield retired and sold his interest to Dr. A. F. Jennings, the firm becoming Parke, Jennings, and Company. Dr. Jennings took charge of manufacturing, but after only two years he left the business. On November 16, 1871, the firm assumed the name of Parke, Davis, and Company.

Between 1866 and 1876 the young company faced many financial difficulties which were met by borrowing from Detroit capitalists. Parke-Davis grew slowly during its first decade, reinvesting its small earnings in new facilities. In 1876 the books showed a profit for the first time and in 1877 the first dividend was declared. Parke-Davis has been a financial success since that time. From its beginning in a small drugstore in Detroit the company has grown to become one of the country's major drug manufacturing companies. Today the company is made up of plants and laboratories in all sections of the United States and in many foreign countries. Its interests range from pure science basic research to the production of drugs and other medical and health related products.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

William H. Haynes, ed., American Chemical Industry, 6, (New York, 1949).

"Industrial Research," Research-A National Resource, (Washington, 1941).

Parke-Davis at 100, n.a., (Detroit, 1966).

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY 1 acre

UTM REFERENCES

	ZONE	EASTING	NORTHING		ZONE	EASTING	NORTHING
A	17	884040	4688930	B			
C				D			

VERBAL BOUNDARY DESCRIPTION

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE
James Sheire, Historian

ORGANIZATION
National Park Service - Historic Sites Survey

DATE
1/27/76

STREET & NUMBER
1100 L Street NW.

TELEPHONE

CITY OR TOWN
Washington

STATE
D.C.

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL X STATE ____ LOCAL ____

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

FEDERAL REPRESENTATIVE SIGNATURE

TITLE

DATE

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DATE

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION

ATTEST:

DATE

KEEPER OF THE NATIONAL REGISTER

77

Parke-Davis pharmacological research activities date to 1869. At that time the production of new medicinals meant only one thing, namely the discovery and application of previously unknown vegetable drugs. Every new plant mentioned in a technical publication as having potential medicinal value was immediately investigated by the competing drug companies. Parke-Davis was a pioneer in the search for new vegetable drugs. In these years, when the West was still "wild," company representatives explored British Columbia, Washington, Oregon, Northern California and Mexico for new plants. Explorers were sent to the West Indies and as far away as the Fiji Islands. In 1885 Dr. Henry H. Rusby made an extensive botanical exploration in South America for Parke-Davis. Nearly fifty new drugs were added to the materia medica from these investigations. Although plant drugs have now been largely abandoned, a few are still listed in the United States Pharmacopia. A side benefit of these research activities was the accumulation of an extensive herbarium and a fine botanical library, which Parke-Davis eventually gave to the University of Michigan.

The year 1879 marked the beginning of one of Parke-Davis' most significant research contributions to pharmacology. Before 1879 fluidextracts, tinctures, and extracts of many potent vegetable drugs, as well as the drugs themselves, had varied in strength from valueless to dangerously potent. Because weight of the drug or measure of the fluidextract were the sole criteria of strength, no one knew the differences in strength until the drug was actually used on a patient. In September 1879 for the first time Parke-Davis offered a liquid drug preparation which had been adjusted to a uniform standard by means of a chemical assay. This drug was the first "standardized" medical preparation and its development marked the beginning of a new era in medicinal products. Today chemical assays and chemical standardization procedures are an integral part of pharmacology.

In 1897 Parke-Davis was the first company to offer physicians a series of drug products that had been standardized by biological means. Those drugs which consist of at times crude mixtures of plant or animal products can only be standardized after comparing the potency of each batch on some species of animal with a standard sample. Parke-Davis pioneered this process known as biological standardization and today it is applied to a great variety of drugs.

In addition to its leadership in the field of standardization Parke-Davis research has been responsible for a large number of individual discoveries. In the 1890's Parke-Davis scientists developed a diphtheria antitoxin and antistreptococcic and antitetanus serums. As interest in vegetable drugs

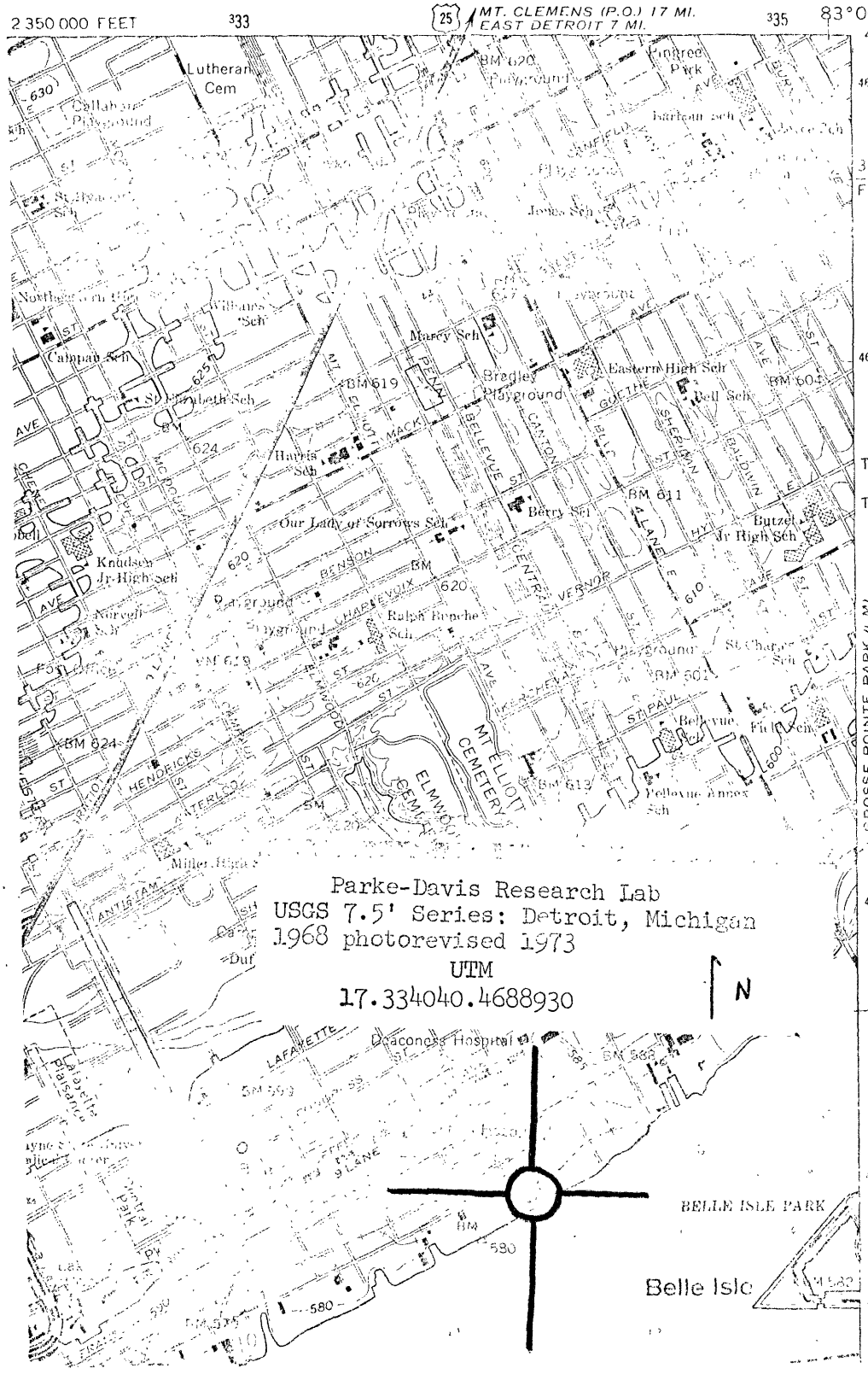
waned, increased attention was given to animal glands and the entire subject of endocrinology. In 1895 Parke-Davis' marketed a dried and powdered form of the suprarenals. One of Parke-Davis' proudest moments came in 1901 when Jokichi Takamine isolated adrenalin, the first pure endocrine hormone from the suprarenal gland. Shortly thereafter, the Parke-Davis laboratory established its chemical formula. In subsequent years the laboratory produced a long list of hormone preparations.

The Parke-Davis laboratory was also a leader in the development of vitamins and other medicaments. From the laboratory's research program came the first biological assay of cod liver oil for vitamin D, the first label statements in units of vitamins A and D, the first published recognition of more than one component in vitamin B, and the preparation of crystalline antianemic vitamin B_c. The company introduced original medicaments such as Mapharsen for syphilis, Dilantin for epilepsy, Promin for leprosy, and Benadryl for various allergies. Parke-Davis also participated in the large scale development and production of vaccines and antibiotics such as penicillin and streptomycin.

Closely associated with the research achievements of the laboratory was Parke-Davis' dissemination of information concerning its pharmachological discoveries. From an occasional bulletin in the 19th century the company developed a series of technical publications distributed to scientists and physicians. Therapeutic Notes, a medical journal summarizing developments in medicine, was begun in 1894 and is Parke, Davis, and Company's oldest publication. Parke-Davis was also responsible for preserving the existence of one of the outstanding publications of American medicine, John Shaw Billing's Index Medicus. In 1884 the continued publication of the Index was threatened because of financial problems. Parke-Davis assumed responsibility for the publication of the Index and continued to sponsor it until 1895, when a secure financial base was found.

Parke, Davis, and Company's significance in the history of science in America rests on its pioneer role in developing pharmacological research. Other American drug companies have long-standing research programs and they have made contributions to pharmacology and science as important as those of Parke-Davis. Parke-Davis, however, was the first and as such stands as a representative for the important research role that the drug companies have played in industrial research in the United States.

DETROIT QUADRANGLE
MICHIGAN--ONTARIO
7.5 MINUTE SERIES (TOPOGRAPHIC)



Parke-Davis Research Lab
USGS 7.5' Series: Detroit, Michigan
1968 photorevised 1973
UTM
17.334040.4688930

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