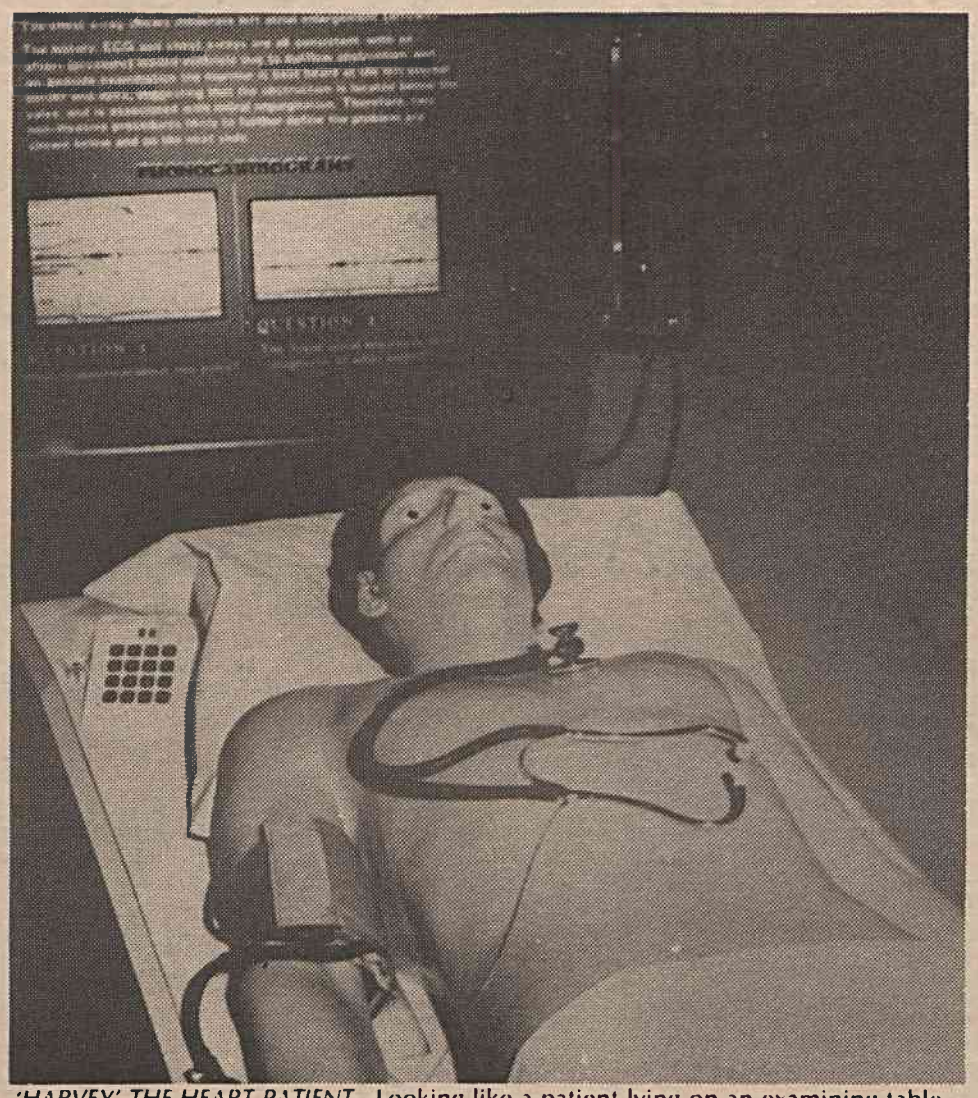

'HARVEY' THE HEART PATIENT—Looking like a patient lying on an examining table, "Harvey," the world's first computerized heart manikin, can show complete symptoms for any one of the 40 most common heart ailments. The Alcoa Foundation of Pittsburgh, Pa., has given the Division of Cardiology at Duke $100,000 to purchase one of three such devices now being constructed.

Grant To Buy $100,000 Manikin

Dummy To Teach Medicine

By David Williamson

A patient with the 40 most common types of heart disease will be admitted to the School of Medicine late next year.

Although hundreds of medical students, residents, nursing and allied health students will examine him and suggest treatments, the patient is not expected to recover. If he does recover, everyone will be disappointed and more than a little surprised.

The patient is a heart manikin, health education's answer to Farrah Fawcett's six million dollar husband. This dummy can't chase spies, but it will be able to teach medical students a lot about common heart ailments.

Dr. William G. Anlyan, vice president for health affairs, acknowledged what he termed "a generous gift of $100,000 from the Alcoa Foundation of Pittsburgh, Pa.," to purchase the manikin for the medical center.

One of Three

It is one of three such manikins being designed at the University of Miami under the direction of health specialist and inventor Dr. Michael Gordon.

The foundation also has given $100,000 to Yale University and the American College of Cardiology to purchase the other two, according to the organization's senior vice president Charles L. Griswold.

The first manikin, "Harvey," is the only one presently in existence. Dr. Andrew Wallace, chief of cardiology at Duke, said that as an experimental model, it was judged the best medical exhibit at the American College of Cardiology's annual meeting this year.

Total Learning Experience

"A total learning experience is the best way to describe it — a moving simulation of what a patient would look like if he had any one of 40 different kinds of heart disease," Wallace said.

"It has a head, a neck, a trunk, arms and legs, and looks remarkably like a patient lying on an examining table.

"Inside the manikin is a large number of parts capable of producing heart beats, pulses in the neck and wrists that feel like arteries and veins, and sounds that are characteristic of normal and abnormal hearts," he said.

"He even breathes."

Harvey Teaches Diagnosis

The computerized humanoid "Harvey" was created as an efficient method for teaching medical students how to diagnose abnormal heart conditions, Wallace said.

The physician explained that for centuries, students have had to reply on the availability of heart patients in the hospital. If there were no patients with a particular problem, it was much more difficult for the students to learn about that disease.

"We will now be able to teach the physical characteristics of the most common heart disease states seven days a week, 52 weeks a year," Wallace said.

The specialist said a slide presentation on each condition, linked by a computer to the manikin, enhances its teaching potential.

Clinical Unknown

"The manikin can be treated as a clinical unknown, a patient with certain symptoms," he said. "The student would go through the physical exam, review the electrocardiogram, X-ray and other laboratory data, and try to make a diagnosis.

"He would then try to evaluate the severity of the condition and decide on the best treatment."

Wallace said medical educators

(Continued on page 4)

Scientist Receives Endocrinology Award

A medical center researcher has returned from England where he was awarded one of that country's highest scientific honors.

Dr. John W. Everett, professor emeritus of anatomy and a past president of the American Association of Anatomists, was presented the Sir Henry Dale Medal at special ceremonies held in London.

The award was given by the Society for Endocrinology at its annual meeting after Everett delivered the Sir Henry Dale Lecture, entitled "On the Timing of Ovulation."

Since receiving the honor, he has been travelling in England and Scotland where he presented lectures at Oxford University and the University of Edinburgh Medical School.

Indelible Stamp

At the award ceremony, a spokesman for the Society for Endocrinology said, "The name of Everett is stamped indelibly on the record of research in reproduction, and the society takes pride in his acceptance of the Dale Medal.

"Like Sir Henry Dale (a pioneer in endocrinology), Everett is famed for the meticulous design and execution of experiments, using the simplest and most reliable techniques available, and for careful and cautious evaluation of the findings," he said.

"These characteristics are reflected in the discussions at meetings, where his contributions are always brief, to the point, and extremely welcome."

Everett earned an A.B. degree at Olivet College in his native Michigan and then completed his Ph.D. in zoology at Yale University in 1932 before joining the Duke faculty the same year.

Interest in Animals

His interest in animals had begun in 1922 when a fish he caught and cleaned revealed a fascinating array of muscles and organs.

"Everything was so orderly," he said, "that I finally decided I'd have to give up the study of radios and electronics to devote my entire efforts to biological things."

Early in his professional career, the scientist designed experiments aimed at explaining the interaction between hormones and female fertility.

Reproductive Research

Using laboratory rats, Everett established the fact that estrogen and progesterone, two hormones produced by the ovaries, both act upon the pituitary gland by way of the brain to cause the gland to secrete luteinizing hormone (LH) which brings on ovulation in mammals.

Along with his colleague Dr. Charles H. Sawyer, now a professor of anatomy at U.C.L.A., he was also able to show that certain barbiturates and other drugs would prevent the release of LH during certain critical times in the reproductive cycle.

This was the first indication that luteinizing hormone is released in a surge in the afternoon a few hours before ovulation takes place.

Brain Regulation

Everett also proved by transplanting the pituitary gland of laboratory rats to distant parts of their bodies, that the brain normally regulates the secretion of prolactin by means of an inhibiting substance. Prolactin is the hormone that controls milk production in mammals.

One of his graduate students, who is now professor of anatomy at the University of Kentucky, helped to establish under his direction that the brain controls the pituitary gland through a blood vessel link rather than through nerves as had been believed.

Although he officially retired last year when he turned 70, Everett is still at work in his third floor Bell Building laboratory.

The National Science Foundation is continuing to support his attempts to identify the nerve mechanisms in the hypothalamic region of the brain which sends chemical signals through blood vessels to the pituitary.

DR. JOHN W. EVERETT

Praying Together Now Convenient

Employees who would like help with their prayers or would like to pray for others may join a new prayer group in the medical center.

Participants may pray at their convenience in the hospital chapel on the first floor, yellow zone. A notebook at the chapel desk lists prayer requests from patients and others. Participants may add to their list.

"There are many prayer requests from patients here, but also employees find that their working situations need to be prayed over," said John Clifton, electronics technician and organizer of the prayer group. "Many find that it's great to start the day off by talking to God.

"The reason that there is no set time for all to meet is that there are so many different work schedules," Clifton said. "This will allow employees to fit prayer into their schedules."

He said some members pray before or after work or during their breaks. The only times not available are during the 10 a.m. worship service or during an emergency requiring the use of the chapel.

Prayer requests are shared with the Surgical Private Diagnostic Clinic (SPDC) prayer group that meets each day at 8:15 a.m. at the SPDC.

For more information on the chapel prayer group call Clifton, 684-2430. For information on the SPDC group call Eloise Thomas, 684-3411.