They almost made it in time—but not quite

By Parker Herring

(From a report by Pattie Gettys, reporter for orthopaedic surgery.)

Cathy and John Rendall were safely en route to Duke Hospital Feb. 14 for delivery of their twins when they encountered a few untimely obstacles.

"Between the train and the rush hour traffic, we didn't make it in time," Mrs. Rendall said.

So, John Rendall, chief orthopaedic resident, parked his car a few blocks from Duke in the parking lot of the China Inn restaurant and delivered his sons.

"We had just gotten through the stop light at the intersection of Hillsborough Road and Trent Drive when Cathy told me to stop the car," Rendall said. "I saw a train going across the tracks, so I pulled over and parked the car in the restaurant's parking lot."

'No time at all'

One of the boys was born at 8:01 a.m. and the other was born at 8:04 a.m. One twin weighed 6 pounds, 2 ounces and the other weighed 6 pounds, 9 ounces.

"We arrived at the ER with one baby wrapped in a white lab coat," the young surgeon said, grinning.

"And we wrapped the other baby in one of my nightgowns," his wife said. "They put the babies on a stretcher so I went over and sat down in a wheelchair."

The twins' mother said her labor took "no time at all."

"I only had four contractions," she said.

Not spared ribbing

Mrs. Rendall said they encountered a lot of heavy traffic on the way to the hospital and "got behind quite a few school buses."

The Pendalls, who have three other children, had been told three weeks before the due date to expect twins. The multiple pregnancy had been confirmed by their obstetrician through ultrasound testing.

Cathy and John Rendall have been kidded a lot about the locale of the twins' birth.

"The Surgical Wives' Club newsletter suggested two names for the twins," Mrs. Rendall said.

One of them was Gung-Ho.

DOUBLY SWEET VALENTINE TREAT—Cathy and John Rendall are shown with the Valentine's Day presents they gave each other this year—twin boys who were *almost* born at Duke Hospital. Mom has Christopher Galen and dad, Duke's chief orthopaedic resident, holds John Lloyd IV. *(Photo by Parker Herring)*

Develop working lab model

Dermatologists closer to understanding unusual disease

By David Williamson

Scientists at Duke have created a working laboratory model for an unusual and often fatal skin disease in which the human body rejects its own outer layer of skin cells.

The researchers believe the model helps to explain why the disease pemphigus vulgaris causes severe blistering and large sores in its victims. They also feel it may lead to more effective treatments in the future.

Dr. Roderick Farb, a research associate in the Division of Dermatology, said the disease is almost invariably fatal if untreated.

In their experiments, Farb and his colleagues removed the outer layer of skin from baby mice and grew these epidermal cells in special tissue cultures.

Cells separate

When serum from the blood of pemphigus patients was incubated with the mouse cells, the cells detached from each other and also from the culture plates, much like cells detach in humans who have the disease. Serum from normal patients, Farb said, had no such effect.

The scientists then isolated an immunoglobulin called IgG from both normal and affected serum. An immunoglobulin, Farb said, is a protein antibody which is usually one of the body's natural defenses against disease.

In pemphigus, however, antibodies also develop against the patient's own skin which causes the skin cells to separate, he said.

Still alive

The researchers discovered that cells treated with pemphigus antibody were still alive. This finding, according to Farb, ruled out one of the major theories of the way pemphigus antibody works — that sufferers lose skin because skin cells are killed through a complex biochemical reaction caused by the antibody.

"We believe that when pemphigus IgG 'binds' or attaches to the skin cells, a protein-destroying enzyme called neutral proteinase, found in both human and mouse tissues, is either activated on the cell membranes or secreted by the cells," Farb said.

The neutral proteinase, which is normally inactive, then destroys the protein material that holds cells together, allowing the cells to float free in culture plates or to appear as severe blistering in patients, he explained.

Pieces of a puzzle

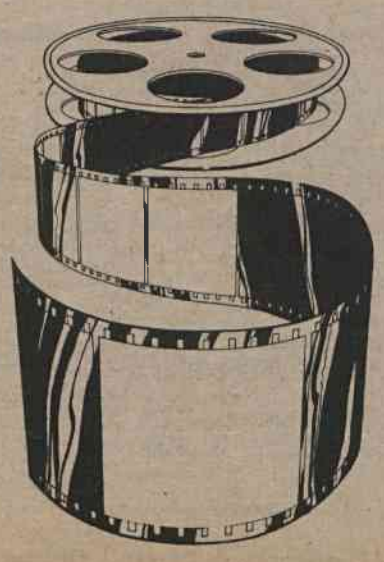
Farb said he and his colleagues think the neutral proteinase causes separation of cells because a chemical derived from soybeans known to inhibit the neutral proteinase, prevents cells treated with pemphigus IgG from breaking apart.

"Understanding the mechanism of how this disease works is a foothold in finding better ways to treat it," the researcher said. "It's like pulling the pieces of a puzzle from inside a black box and slowly sorting them out."

Cortisone drugs currently used to treat pemphigus patients are often effective, but they can have a number of undesirable side effects, he said.

An account of the research appeared in the January issue of the Proceedings of the National Academy of Sciences. Co-authors were technician Robert M. Dykes and Dr. Gerald S. Lazarus, chief of dermatology at Duke.

The National Institute of Arthritis, Metabolic and Digestive Diseases provided grant support to develop the disease model.



Children's films

A children's film festival will be held on campus tomorrow and Sunday, according to Dr. Joseph M. Corless, assistant professor of anatomy.

Saturday's series will begin at 3 p.m. in the Gross Chemical Laboratory Auditorium. A different program of films will be shown Sunday at 3 p.m. in the Biological Sciences Building Auditorium.

A tax-deductible donation of $1 per person is requested for each series, Corless said, and proceeds will benefit the Montessori Children's House of Durham.

Grad student drowns in accident

James W. McGinnis, a graduate student in the Department of Microbiology and Immunology, drowned in a canoeing accident on the Haw River Saturday, two days before his 27th birthday.

A companion, Dr. Martina (Marty) Wiesemann, a post-doctural fellow in the same department, escaped serious injury, but was stranded overnight on a partially submerged island.

McGinnis was a graduate of Stanford University and anticipated completing the requirements for a doctorate here this summer before continuing his studies at Cambridge University in England.

He was a resident of Cary and is survived by his parents, two sisters and a grandmother.

Memorial contributions may be made to the Comprehensive Cancer Center.

JAMES W. McGINNIS