



Intercom

Duke University Medical Center

VOLUME 23, NUMBER 44

NOVEMBER 5, 1976

DURHAM, NORTH CAROLINA



IT'S NOT THE SAME OUT FRONT—In the short space of four years (it would have been four the 13th of this month), Charlie Grinstead had become a fixture in front of Duke Hospital. The fact that his job was Parking Valet and that on the busiest days not enough people requested that service to pay his salary was purely secondary. Charlie's role was much bigger than parking a few cars. His was generally the first official face of the medical center that patients and visitors saw as they came up the walk. And that face was always smiling. Charlie reflected that happy, cheerful, helpful attitude to everyone he met. They profited from it and so did the Duke Medical Center. Charlie became ill at work here Oct. 21. He suffered a stroke and died here Oct. 28 at the age of 57. In addition to his wife, Eva, and his mother, others in his family include five sons, three sisters, two brothers and eight grandchildren. (Photo by David Williamson)

Pollution Shown to Hinder Resistance to Lung Disease

By David Williamson

Scientists here and at the Environmental Protection Agency have found strong new evidence that air pollution impairs the ability of the lungs in mammals to fight off airborne disease organisms.

They also have developed what they consider to be the most sensitive test yet devised to measure how extensively air pollution hinders the lungs' natural defenses.

Duke's Dr. Daniel B. Menzel said their experiments showed that protective scavenger cells called "alveolar macrophages," taken from the lungs of research animals that had been exposed to air pollution, attacked harmless red blood cells in a manner similar to the way they are supposed to combat foreign disease organisms.

Primary Defense

"Alveolar macrophages are thought to be the primary defense mechanism of the lung against airborne viral and bacterial infections such as swine flu, tuberculosis and all forms of pneumonias," Menzel said.

When macrophages don't do their job properly, disease invaders find a golden opportunity to advance and multiply in air passages, he explained.

In the EPA-funded experiments, macrophages were taken from rabbits that had breathed air containing ozone and rabbits that had breathed air containing nitrogen dioxide.

Most Toxic Gases

"Ozone and nitrogen dioxide are the two most toxic gases that exist as

air pollution," the scientist said. "These oxidant gases are products of a chemical reaction that takes place in the atmosphere when sunlight acts on unburned fuel emitted in motor vehicle exhaust."

As a control experiment, macrophages were also taken from rabbits that had breathed pure air.

Under laboratory conditions, the large protective cells were mixed with combinations of the rabbits' own red blood cells and substances derived from wheat germ.

Macrophages Attack

The researchers found that macrophages exposed to pollution levels very close to levels found in Los Angeles and Tokyo attacked these special combinations, while macrophages from pollution-free rabbits did not.

"Now macrophages should never recognize their own red blood cells because otherwise they would go around engulfing and digesting them," Menzel said.

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Med Center Tops UF Contributions From Last Year

The eleventh hour found United Fund campaigners launching concentrated efforts to try to wrap up the drive by today.

As of Tuesday, \$36,144.58 had been raised toward the medical center's goal of \$44,100. The campus wide total remained \$9,300 short of the \$97,200 goal.

"Everyone says we will make it, we will make it," according to campus wide drive chairman the Rev. Robert T. Young, university minister.

"The medical center has given more than any other division, and has already surpassed last year's contributions," Young said.

He also said that even though the drive was ending, contributions would still be welcome, and he hoped that these later pledges would put the drive "over the top."

This week's campaign activities have included sending out letters to all employees, thanking those who have contributed and encouraging those who have not to do so.

Direct contact also has been made with last year's "Pacesetters," individuals who gave \$50 or more. There were 250 Pacesetters in the medical center in 1975.

The United Fund helps support 32 agencies serving local citizens.

Dietitian Also Hunter

It's A Long Way from Duke to Wyoming

By Ina Fried

For one week out of the year Susan Whittaker exchanges her white dietitian's uniform for long underwear, jeans and wool socks; her desk for a tent; and her pen for a rifle.

Her vacation is often an outdoor adventure that this year included the shooting of a six-point elk in the wilderness of the Wyoming mountains.

After spending the night at a base camp where she was the only woman hunter, Mrs. Whittaker, her husband Rusty and a guide rode horseback about 18 miles into the wilderness to set up camp. The seven-hour trip left her "too numb to be sore." The hunt started the next day.

Bull Elk's Challenge

When they spotted a bull elk some

distance away, the guide used a whistle that sounds like the challenge of another bull to draw the elk out of the woods.

"Sure enough he turned broadside and just stood there about 200 yards away," Mrs. Whittaker recalled. Her first shot was probably the mortal one.

The 5'3" 115-pound woman had brought down a 500-or 600-pound elk with antlers 41 inches wide. Her kill was the second largest that week among hunters from the base camp. The rest of the week was spent in an unsuccessful search for deer.

Never Outdoor Person

"I was never much of an outdoor person before I got married," said Mrs. Whittaker, dietitian for patient food services. "I never hunted, camped or fished."

The idea of hunting for food and for sport does not bother her, though. "So far my shots have been very good. If I thought I would wound an animal that could get away and suffer, I would be more reluctant to shoot," she said.

"Hunting is probably one of the more humane ways to control the animal population," she commented. "If they get in an area where the natural predators are removed and they have good food, they overpopulate and then either starve or get sick."

Maintaining the Herds

Money from hunting licenses is used for upkeep of the area and for winter feed to maintain the herds in Wyoming, she pointed out. Laws

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