

# Kentucky Lions Fund Breakthrough Research

**Since the original challenge set forth by Helen Keller in 1925, the Lions have worked hard to provide funding for research to cure blindness. In Kentucky, Lions have long been dedicated to providing the "gift of sight" to the people of their state. So when local physicians challenged the Lions to build a state-of-the-art laboratory specifically for eye research, it was no surprise that they built one of the best eye research laboratories in the country.**

"Kentucky Lion Finis E. Davis, a past international president, was the one who really took the challenge to heart and spearheaded the campaign to raise funds — without him, this center would never have been possible," points out Kay Lutes, Executive Director of the Kentucky Lions Eye Foundation. "The research center was completed shortly before his death, but his memory lives on in the Kentucky Lions Eye Center we have dedicated to him."



*Dr. Norman Radtke works in the lab, as Dr. Robert Aramant and Dr. Magdalene Seiler observe.*

In May of 1997, the \$4.8 million expansion of the Kentucky Lions Eye Center was completed, with the hopes that one day a cure for blindness may be found within its doors. The much heralded inauguration ceremony for the new research center was viewed as an important step by Lions throughout the world and was attended by Augustin Soliva, then serving as international president.

Now, just a few short years after the new research center first opened its doors, it appears that their goals may have already been achieved. Dr. Norman Radtke and a team of University of Louisville researchers are making tremendous breakthroughs. They have successfully improved the vision in two patients who were legally blind.

Dr. Radtke and his research team are pioneering a surgery that attempts to help the patients' eyes repair themselves. During the surgery, Dr. Radtke replaced small sections of the patient's retina with immature eye tissue. So far, Dr. Radtke has performed this surgery on five patients in his first clinical trial for this retinal tissue transplant.

The two patients who had improvements are reporting that they can actually see light streaming in through windows. "We have really had great success in this trial because from the five patients, two were removed from the study

because of unrelated medical conditions, two report improvements and we are still too early in the game to determine if the fifth patient will have any changes. So right now, we are two out of three reporting improvements," says Radtke.

Although there have been other attempts to transplant tissue directly into the patient's retina, the transplant surgery being performed by the University of Louisville researchers is quite different from previous attempts, according to Thom Zimmerman, professor and chairman of the department of ophthalmology and visual sciences at the university's School of Medicine.

"What really sets this apart from other transplant surgery is that they are using whole sheets of tissue in their transplants," explains Zimmerman. In the past, researchers had simply taken tissue in a vial and used a needle to squirt it into the patient's tissue, which makes it difficult for the transplanted tissue to grow. "With a whole sheet of tissue, the tissue is organized and can grow," Zimmerman points out.

According to Dr. Radtke, his team of researchers was able to insert entire sheets of tissue into the patient's retina because they have developed a special instrument designed by team member Dr. Robert Aramant, associate professor at the University of Louisville.

Aramant and team member Dr.