

Magdalene Seiler began research on retinal tissue transplantation nearly 14 years ago. They had not been able to do all their research in one building, however, until the Lions Eye Center opened the research laboratory in 1997. "It has made so much difference to have everything you need in one building," said Aramant.

This exciting work has been well received by the medical community and everyone seems to be anxiously awaiting more results. Because this surgery is for diseases that affect the retina, their research could eventually help treat many different degenerative eye diseases.

Two of the most common degenerative eye diseases that this procedure could eventually treat are retinitis pigmentosa and macular degeneration. Retinitis pigmentosa is a hereditary eye disease that often begins in childhood and affects approximately 100,000 Americans. However, macular degeneration occurs in many people as they get older. In fact, macular degeneration is the leading cause of blindness in people over the age of 50 in the United States, according to Prevent Blindness America statistics.

"We are excited that we have the results we have so far. But, we are anticipating that we will have to make more changes to improve our results," said Radtke.

**"In treating
degenerative eye
diseases, we are
climbing up a huge
mountain."**

Some of those changes will be taking place in an upcoming clinical trial. The first group of five patients only received one sheet of retinal tissue. Radtke's next group of five patients will receive at least two sheets of retinal tissue. The entire team is hopeful that this will allow even more improvement. "We would like to improve the quality of the patient's life — I would like to improve their vision enough so that the patient could read," Radtke says.

"Although it is hard to say if this will prove to be a cure, this procedure is innovative and exciting," maintains Zimmerman. "In treating degenerative eye diseases, we are climbing up a huge mountain. This is a good step forward and will open the door for more research. Or, it may prove to be the final answer."

For now, researchers around the world are watching this promising research. However, more importantly there is now hope for patients with degenerative eye diseases who had no hope before.

"Without the Kentucky Lions Eye Research Institute, we would not be able to do the research we are doing. It is the only research lab that is totally geared to eye research," Radtke says with pride. ■



An artist's rendering of the new Kentucky Lions Eye Research Institute shows its dramatic and original design.