



So OTHERS CAN SEE

**Researchers set
their sights
on curing macular
degeneration**

By Andrew Kaszowski

If you ask Canadians, they would rather be able to see than walk. A Canadian Association of Optometrists survey recently found that 76 per cent of people rate their eyesight as more important than the ability to walk. This is why age-related macular degeneration—the leading cause of blindness in Canada—is such a serious disease. And without a well-understood cause, it remains a problem that is ballooning with the aging population.

“Macular degeneration is a major concern,” says Dr. Cindy Hutnik, a scientist at Lawson Health Research Institute and an ophthalmologist at St. Joseph’s Ivey Eye Institute. It’s scary, she adds, because it affects so many individuals in every community.

This intimate understanding of the disease’s severity fuels a determination to find a cure. With some of the best clinicians at Ivey Eye and scientists at Lawson, St. Joseph’s is at the forefront of reversing this negative aging process. Also driven to find a cure is London’s Jarmain family. Before her death, Ruth Jarmain suffered from macular degeneration. To honour Ruth, her son and late husband sponsored equipment and created an endowed fund to

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to himself as a living example of the power of determination and healing. “I say, ‘Look at me: I wasn’t supposed to live the night. A surgeon said there’s no hope. And here I am standing here.’ They cry, they smile. They perk right up. It gives them hope.”

He also reminds the stroke survivors that to get better, they

must *want* to get better. “I tell them, ‘You have to have the will to live. Remember, there is life after stroke.’”

Rubini says, “Walter provides hope not just to stroke survivors but also to their families. It’s amazing how he touches people. It gives them incredible inspiration.”

And when Gretzky speaks to groups of people at conferences, golf

tournaments and other gatherings to tell his incredible story of surviving stroke, he makes sure they know what to do if they ever find themselves in the situation he experienced 16 years ago.

“I tell them, ‘If you’re ever experiencing one of the five symptoms of stroke, get to the hospital right away. Time is everything.’” ■

support research in eye health through St. Joseph's Health Care Foundation.

Drs. Hutnik and Alex Mao are two recipients of grants from The Jarmain Family Fund in memory of Ruth Jarmain. "I have always felt that research is more goal-driven when it is personalized," Dr. Hutnik says. "When a local family supports research into a disease that has touched its own members, it raises the determination to help find answers."

Dr. Hutnik and her team at Lawson are investigating macular degeneration in two ways: analysis of the chain of events that causes the disease to occur and testing of strategies that could prevent its progression. Scientists believe that the disease might develop when a cell loses its defence against reactive oxygen molecules during metabolism. Without this defence, damaging molecules are released that cause nerve damage through an altered state called excitotoxicity. Macular degeneration is irreversible when nerve tissue becomes dead.

Dr. Hutnik's study looks at the drug Memantine® to see if it can restore a more normal balance in the retina. In collaboration with researcher Dr. Kathleen Hill at The University of Western Ontario, DNA-level analysis is also performed on retinas to examine exactly why the devastating chain of events begins.

When drug therapies are made available, it's important to understand their appropriate use. Dr. Mao, an optometrist with Ivey Eye and an associate scientist at Lawson, is leading an investigation into the drug Avastin®, a promising treatment for macular degeneration. Careful analysis of the drug will enable ophthalmologists to determine its suitability in the standard of care. Dr. Mao's team is summarizing data from all case-series studies of the drug.

"We provide a spectrum of care from drug treatment to surgery and low vision rehabilitation," Dr. Mao says. "With research, we can improve care for visually impaired patients and improve their quality of life."

The dedication of donors like the Jar mains enables researchers to continue the path to discovery. ■



Drs. Alex Mao and Cindy Hutnik, scientists at the Lawson Health Research Institute, are taking the battle against macular degeneration in new directions.

Leaving a Legacy

By Dahlia Reich

At age 81, Blanche Hawken lives in her own home and does everything for herself. She revels in her independence, especially knowing how close she came to losing it.

Four years ago, Hawken looked up to see wavy lines across her eyesight. Then came a blurriness "that was just so annoying," says the Kitchener senior. Diagnosed with macular degeneration, Hawken was immediately referred to the Ivey Eye Institute at St. Joseph's Hospital. The main referral centre for eye disease in Western Ontario, Ivey Eye is a recognized centre of excellence in diagnostic, medical and surgical eye care as well as teaching and research.

The expert care at Ivey Eye "saved my sight," Hawken says. While she has lost the vision in her left eye, treatments at Ivey Eye over the past four years have preserved the sight in her right eye. "My vision is just fine now," she adds.

Age-related macular degeneration (AMD) is a leading cause of severe vision loss and blindness in adults over age 60. The disease destroys the sharp, central vision needed to see objects clearly and do tasks such as reading and driving. The impact can be devastating for people like Hawken who enjoy active, independent lives. More than one-third of Canadians ages 55 to 74 develop AMD, a figure that jumps to nearly 40 per cent over age 75.

Hawken feels fortunate to have received the care she did when she did. In fact, she's so grateful that she has designated a legacy gift to St. Joseph's Health Care Foundation through her estate in support of the Ivey Eye Institute. Such legacy gifts ensure the compassionate and excellent care provided by St. Joseph's will be there for future generations.

"All I can say is that I was treated wonderfully," Hawken says. "I couldn't say more about the care I received. And I have my sight."