Businesswoman gives $150,000 to stroke research project

JOHN MCPHEE The Chronicle Herald
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It's a disorienting sensation when your perception of the world slides in the wrong direction.

I'm wearing a pair of adaptive prism goggles that are tricking my brain into thinking I'm reaching in the correct direction when in fact I'm slightly off-target to the right.

"When you initially put the goggles on and you try to reach the line, what you'll see is you'll miss the line by a few degrees," said Gail Eskes, who was explaining her study of spatial neglect, a debilitating effect of stroke, in the Life Sciences Research building at Dalhousie University on Wednesday.

"As you gradually do that again and again . . . the brain accommodates to that and it learns where the line is now in the new visual world that you've got. Then when you take the glasses off what you'll find is that you're now making mistakes in the opposite direction. That's the self-correction the brain is learning."

After a stroke in the right hemisphere of the brain, about 60 per cent of people suffer spatial neglect.

"They have trouble paying attention to the left side of the world or the left side of their body," Eskes said. "So they're very likely to miss food on the left side of their plate or bump into things on the left when they're walking down the hall or navigating in a wheelchair."

Eskes' research team is working on developing goggles and computer software to retrain the brain toward that leftward correlation so that stroke survivors can perceive the world as a whole again.

That research received a big boost Wednesday with a $150,000 contribution from Halifax businesswoman **Diane Campbell**, a Heart and Stroke Foundation volunteer and board member.

"The impact of heart disease and stroke can be absolutely devastating for the individual and their family," said Campbell, who owns the Berkeley retirement residence company, in a news release Wednesday evening from Heart and Stroke.

"I wanted to be part of the solution and it starts right here in Nova Scotia. I want to reduce the impact stroke has on survivors and their families and Dr. Eskes' research will do just that."

In the interview earlier Wednesday, Eskes said she was "really grateful" for the significant boost to her work. **"**These days research money is hard to come by so we need people who are willing to help us."

The latest phase of her research involves monitoring the brain waves of people using the goggles and software in order to pinpoint the specific parts of the brain involved in spatial neglect behaviour.

At the moment, Eskes is looking for older people who have not had a stroke to participate (call the lab at 902-494-4033 if you're interested), with future research to involve stroke survivors.

"The way the brain learns that particular task is a bit of a mystery," she said. "In fact, one of the challenges of prism adaptation in the past is that you can get a transient change in someone with neglect, but gradually they go back to ignoring the left and it doesn't seem to last forever. So we're trying to understand what is it about the brain that's learning the task, so that we can make the after-effects more permanent."

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