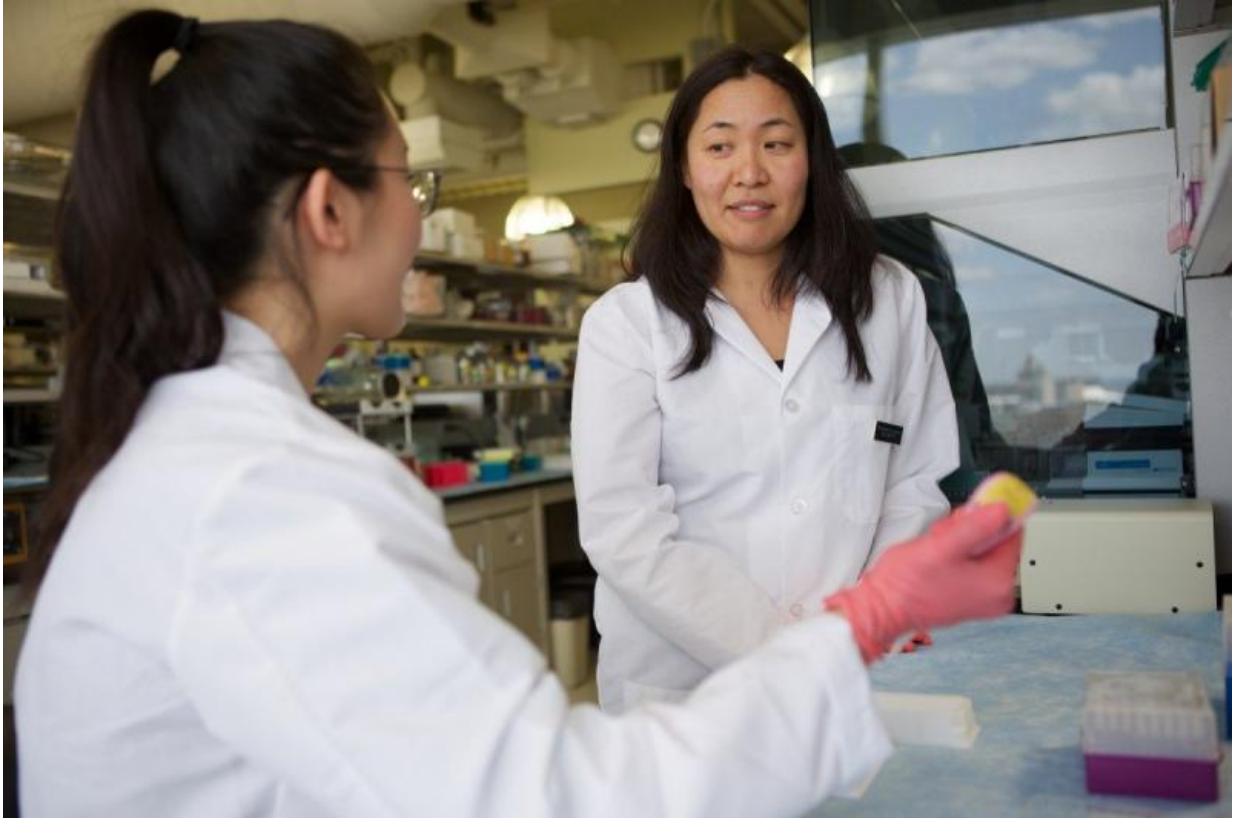


Improving kidney transplant outcomes

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Credit: University of Manitoba

A new clinical trial led by researchers at the U of M could change the current standard of care for monitoring kidney transplant patients and potentially increase the longevity of successful kidney transplants. Principal investigator Julie Ho says many Canadians don't realize that kidney disease is a silent killer.

It's actually really sad when patients tell their families they have [kidney disease](#), it doesn't have the same implication as if they were to say 'I have cancer.' But the mortality rate with kidney disease is actually just as bad as with many cancers, although there is less public awareness about it," says Ho, an associate professor of internal medicine and immunology in the Max Rady College of Medicine.

Doctors currently monitor the function of transplanted kidneys, but a transplant recipient has to lose a lot of renal function before routine tests pick it up. As Ho puts it, a patient can have organ rejection and significantly damage his or her new kidney before routine tests detect that there is anything wrong.

"The problem right now is we're not picking up all the rejections," she says. "There are some types of rejections where the serum creatinine (a blood test to gauge [kidney function](#)) never changes, but we actually find it on biopsy. So we know they have rejection that our routine tests didn't detect."

A new method of testing is set to hit the trial stage in a year. Ho and a team of researchers have been working on a protein found in urine that detects rejection before routine clinical tests, as part of a previous grant funded by the Canadian Institutes of Health Research (CIHR). This has laid the groundwork for a multi-centre, random-ized controlled clinical trial for which Ho's team has received a new five-year CIHR project grant of \$2.6M.

Ho shares principal investigator status with an extended team including Peter Nickerson, David Rush, Ian Gibson, Atul Sharma and Chris Wiebe, all from the U of M, and Patricia Hirt-Minkowski from University Hospital Basel. Co-investigators are: Sacha De Serres (Université Laval), Anthony Jevnikar (Western University), Sang Joseph Kim (University of Toronto) and Gregory Knoll (Ottawa Hospital

Research Institute).

"We noticed that the CXCL10 protein rises in people who have rejection, before we actually are able to detect rejection with our current standard of care monitoring. This protein reflects early inflammation or rejection in the [kidney transplant](#)," the researcher explains.

End-stage kidney disease is the primary cause of [kidney failure](#), which affected more than 36,000 Canadians in 2015.

For decades, researchers at the University of Manitoba have been committed to pursuing research that will lead to the prevention, or early detection and treatment, of kidney transplant [rejection](#) in order to provide the highest possible quality of kidney transplant care to Canadians.

Our research teams have developed one of the best translational research programs in clinical [transplant](#) nephrology in North America.

- 5,438 New cases of end stage kidney disease in Canada
- 36,251 Canadians living with end stage kidney disease
- 2,208 Manitobans living with end stage [kidney disease](#)

Provided by University of Manitoba

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