

## **Award recognises young researcher's achievements**

Researcher Min Hu has been awarded the International Basic Science Mentee/Mentor Travel Award by The Transplantation Society to attend The International Congress of The Transplantation Society in Vancouver, Canada.

She received the award for her excellent scientific abstract that advances the understanding of transplant science/immunology and the treatment of transplant recipients.

One of the problems with transplantation is the need for the recipient to take immuno-suppressant medication to prevent rejection.

Min has been studying transgenic mice to help solve this problem. The aim is to develop long-term mixed chimerism, where donor cells have durably engrafted in the recipient, to achieve specific organ transplantation tolerance.

The chemotherapy drug BCNU can be used to help donor cell engraftment, but damages DNA. The Methyl-Guanine-Methyl-Transferase (MGMT) protein inhibits the DNA damage by BCNU. Therefore, long-term mixed chimerism can be achieved by using donor bone marrow express high levels of MGMT into the recipient receiving BCNU treatment. A specific transplantation tolerance has been achieved so the recipient can still fight other diseases.

"This has been achieved in the animal model, so the next step would be to apply this research clinically," said Min.

Her Mentor is Dr Stephen Alexander, Head of the Department of Nephrology and Laboratory Head of the Centre for Kidney Research. Min completed her PhD in 2008 and has been working at the Kids Research Institute at The Children's Hospital at Westmead for nearly 10 years. She came to Australia from Shanghai in 1999 to further develop her career.