Construction of Microsearch's new laboratory area on the third floor of the Blackburn Building was completed in April this year. The complex, which combines molecular biology and tissue culture laboratories with a superb microsurgery suite, also includes gene therapy facilities and an office area for 14 students and staff.

The presence of this state-of-the-art research and teaching facility at the University is expected to bring about a healthy increase in the number of surgeons acquiring microsurgical skills, thus fulfilling Microsearch's aim of training the next generation of microsurgeons.

The laboratories were formally opened by Microsearch's patron, Professor Marie Bashir AC CVO, Governor of New South Wales and Chancellor of the University, at a well-attended ceremony on 22 April. Professor Bashir unveiled a plaque commemorating the event and spoke of her long association with Microsearch and its founder, Professor Earl Owen AO.

At the same ceremony, Professor Owen was decorated with the Legion d'Honneur by the French Ambassador to Australia, M. Francois Descouye, in recognition of his contributions to microsurgery and hand transplantation.

More than 130 guests mingled over coffee and cupcakes, congratulating Professor Owen and enjoying short tours of the laboratories conducted by Microsearch Council members and research staff.

Professor Earl Owen is congratulated by the French Ambassador to Australia, M. Francois Descouye
Earl Owen Fellowship
Dr Szun Szun Tay

Dr Szun Szun Tay was appointed last October as the Earl Owen Fellow. She brings us her considerable experience in molecular biology and in tissue culture, which involves growing living cells in test-tubes.

Szun Szun has a degree in biochemistry from Imperial College, University of London, where she also completed her PhD. Her PhD research investigated the role of endothelial cells (the cells that line the inside of blood vessels) in controlling the movement of T cells into transplanted organs. She has also carried out postdoctoral research studies in immunology at the Royal Free Hospital in London and at Addenbrookes Hospital, Cambridge, so Szun Szun comes to us with considerable skills and abilities.

One of her two research objectives is to use gene therapy to modify transplanted organs so their rejection will be less likely, and in this Szun Szun will continue work that Dr Jerome Laurence commenced during his PhD studies.

You might remember Dr Laurence, who appeared in our 2006 newsletter as a recipient of a Young Investigator Award from the Transplantation Society of Australia and New Zealand. Jerome set up a system for the high-level expression of genes in the liver. Szun Szun will use this system to express candidate genes that might be natural suppressors of rejection. She will test these genes for their ability to prevent rejection in our rat liver transplant model.

The other objective of Szun Szun’s research is to investigate the role of the immune substance interleukin-4 (IL-4) in inducing acceptance of transplanted livers. (See the article in this issue on Chaithan Reddy to find out more about IL-4 and IDO).

We have found that treating the donor with IL-4 promotes acceptance of the transplanted liver in the recipient. This treatment is associated with a huge increase in IDO expression in the transplanted liver. Szun Szun has shown that there is a large migration of macrophages (a type of white blood cell) into IL-4-treated livers, and she is currently examining whether it is these cells that are responsible for production of IDO.

Did You Know?
The Microsearch Foundation of Australia receives no government funding.

Donations to the Microsearch Foundation at the University of Sydney are tax deductible. The University is endorsed as a deductible gift recipient under subdivision 30-BA of the Income Tax Assessment Act, 1997.

Your donation will make a real difference to the health of future generations.

Guest Speaker

Dr Alex Bishop will be happy to visit your organisation (within a reasonable distance from Sydney CBD) and address your members on the latest developments at Microsearch.

To request a guest speaker, email us at microsearch@med.usyd.edu.au or phone the office on (02) 9036 7217.
World-famous pianist Cristina Ortiz gave a Sunday afternoon recital for Microsearch supporters in October last year. She played a selection of Brahms, Debussy, Schubert and Rachmaninov on a magnificent Steinway in the University’s Great Hall, with characteristic passion and spontaneity.

During more than 25 years as an international concert and recording artist, the vivacious Cristina Ortiz has developed a unique bond with her audiences and has become one of the most popular and repeatedly sought-after soloists. She has had a long association with Microsearch, having played previously for us at the Great Hall, the Sydney Opera House Concert Hall and Cranbrook School.

The event was compered by the Dean of the Conservatorium of Music, Professor Kim Walker, and guests enjoyed champagne and canapés at the interval in the last rays of the sun in the Main Quad.

Guests included Her Excellency Professor Marie Bashir AC CVO, attending in her capacity as patron of Microsearch, and virtuoso clarinettist Dimitri Ashkenazy, whose leg was saved from amputation after a childhood accident in Greece by the founder of Microsearch, Professor Earl Owen, in 1979. The boy recovered so well from the eight-hour operation that he won his school 100 metres race only two years later.

The world-first operation was performed in Sydney and the young musical prodigy (son of famous conductor and friend of Microsearch, Maestro Vladimir Ashkenazy, currently with the Sydney Symphony Orchestra) vowed that one day he would play at the Sydney Opera House. And when that day came, it was under the baton of Cristina Ortiz, who is a conductor as well as a pianist, that he performed.

The Evening with Cristina Ortiz was described as “very special” by many of the guests and we hope Cristina will give us a repeat performance next time she visits Australia.
Where Are They Now?

Past Microsearch Fellow Vincent Lam (2005)

Dr Vincent Lam undertook a project comparing the ability of different anti-T cell antibodies (T cell activity is responsible for the rejection of transplanted organs) to prevent rejection of a heart transplant in a rat model.

After completing his research with us he did further research work in Singapore and the USA. Vincent returned to Sydney last year to take up a position as a senior lecturer at Sydney University and a clinical position as a surgeon at Westmead Hospital. The research work he carried out while at Microsearch was recently published in the international journal “Transplant Immunology”.

Past Microsearch Fellow Alexander (“Sasha”) Kubitskiy (2006 and 2007)

Dr Kubitskiy is now using his microsurgical skills in reconstructive and plastic surgery at Westmead and Auburn hospitals, but he makes time in his busy life to pursue the research he started at Microsearch. Sasha is investigating whether transplanting two extra organs will have a greater effect on heart transplant survival than either organ alone. He is using both a vascularised bone graft and a thymus (both of which are known to help prevent rejection) to see if the double transplant will promote longer survival of a heart transplant in an animal model.

Past Myee Codrington Scholarship holder Chaithan Reddy (2007)

Dr Reddy finished his research work with Microsearch last year and is now completing senior surgical training in reconstructive and plastic surgery.

His work investigated the role of interleukin-4 (IL-4), an important hormone of the immune system, in promoting transplant tolerance. He showed that IL-4 promotes production of an immunosuppressive molecule called indoleamine dioxygenase (IDO) in white blood cells and that the main source of IDO is a type of cell called a macrophage.

Other studies supported by Microsearch have shown that IL-4 treatment of a liver donor prevents rejection of liver transplants in a rat model. (See the story in this issue on Dr Szun Szun Tay). Chaithan’s work has linked IL-4 treatment with production of IDO by macrophages. This may be an approach to promoting liver transplant acceptance.