## Horses lead troubled kids home

Troubled young people in Logan, beyond the help of normal social programs, have achieved remarkable success reengaging with their schools and families following a program working with horses.

The pilot study, developed by a team led by Dr Annick Maujean and Professor Elizabeth Kendell at the Griffith Health Institute's Population and Social Health research program, makes use of the emotional connection horses develop with humans and basic skills required to control a horse's movements.

Two eight-week programs were conducted near Mt Tamborine and results found all participants who completed the program made significant improvements to their lives and, more importantly, the changes were still holding six months later.

"The big difference between this and any other program is we didn't reflect on their problems or deficiencies, which they've heard endlessly about for years," said Dr Maujean.

"Horses basically mirror the behaviour of the handler; without respect, care, patience, control and confidence the horse won't move.

"They're also a fairly overwhelming animal, they bring out all sorts of emotions. At the beginning these kids could not name a single positive aspect of themselves," she said.

Counsellors, case managers and family reported how deeply ingrained the changes were: more eye contact, upright posture, the ability to conduct a casual conversation and even changing the way some participants dressed.

"The most important part is that all the young ones are back at school and, months after the pilot, have a sense of self-worth," Dr Maujean said.

The project was conducted in partnership with the Logan Beaudesert Health Coalition, Youth and Family Services and Evolve, a Queensland Government inter-agency service.

GHI is hoping to find the funds to run a much larger pilot to confirm the benefits of a program in an area of few successes.



Photo: Dr Maujean (left) with one of the young people and horses that work so well together

## Innovation for Osteoarthritis



Photo: Associate Professor Peter Mills is looking at the effects of obesity on hip osteoarthritis.

Osteoarthritis is the most prevalent musculoskeletal disease in the world, affecting one in twelve Australians and costing us more than \$10 billion a year.

A chronic disease study led by Dr Peter Mills of Griffith Health Institute's Centre for Musculoskeletal Research has been awarded \$100,000 from the Griffith Innovation Grants to investigate the influence of biomechanical, metabolic and structural factors on the rate of progression of hip joint osteoarthritis.

The research team includes Professors Lloyd and Barrett, Associate Professor Beck, Dr Modenese and PhD students Maria Constantinou & Aderson Loureiro from Griffith Health Institute.

A key focus is to tease apart the biomechanical and biochemical effects of fat tissue mass on osteoarthritis progression.

The team is integrating state-ofthe-art techniques in musculoskeletal imaging, biochemical analysis of blood and biomechanical measurement during walking to better understand the factors that influence the rate of hip joint osteoarthritis progression. "Traditionally, the additional joint loads associated with excess body fat were believed to be the sole reason for the accelerated rate of progression of lower limb osteoarthritis in overweight and obese individuals," Dr Mills said.

"However, overweight and obese individuals also have a greater risk of developing osteoarthritis of nonweight bearing joints such as the joints of the hands.

It is now understood that increased joint loading is not the only link between increased body fat and osteoarthritis. Metabolic alterations associated with increased body fat also play a role in the progression of osteoarthritis.

"The rate of progression of osteoarthritis varies substantially; some people take decades to progress from mild to late stage osteoarthritis, while others deteriorate over just a few years."

The findings and analyses from this study will provide additional insight into this heterogeneity and may help to identify modifiable risk factors for future interventions.