

Under the Microscope **with Professor Laing**

RPH's Professor Nigel Laing has received \$1.6 million from the National Health and Medical Research Council to find genes responsible for inherited muscle diseases and develop treatments.

The five-year study is a collaboration between Professor Laing of RPH, UWA and the Western Australian Institute for Medical Research (WAIMR), Dr Kristen Nowak (WAIMR and UWA), and Professor Kathryn North (Sydney's Children's Hospital at Westmead).

Professor Laing said the team would continue with their previous studies where they found some of these mutant genes, and were now investigating how these genes caused muscle diseases

"This study will focus on the congenital myopathies, which are muscle diseases where babies may be born totally paralysed and ventilator dependant," Prof Laing said.

The survival rate of these diseases may be low with many babies dying in their first or second year of life.

In 1995 and 1999 Prof Laing's laboratory made breakthrough discoveries of human disease genes which has made finding a treatment one step closer.

The actin disease gene identified by Dr Nowak in Professor Laing's Laboratory in 1999 is of fundamental importance to muscle contraction.

Prof Laing said people from around the world send DNA samples to the Neurogenetic Laboratory at RPH in the hope of finding genetic mutations.

"We are a world leading laboratory for congenital myopathy diagnostics and as result we receive 2-3 DNA samples a week from people all around the world."

Dr Nowak initiated research into therapies for actin disease at Oxford University and has now returned to Perth.

Dr Nowak said diseases like this are extremely devastating both emotionally and financially.

"The long term goal is to find a pill that people can take to treat the genes that cause these muscle diseases." Dr Nowak said.