Focus on infections

RESEARCH by a Charles Darwin University PhD candidate into a respiratory disease that hospitalises indigenous children throughout the NT is aimed at helping these kids breathe easier.

With an alarming 20 per cent of NT indigenous children admitted to hospital suffering acute lower respiratory tract infection (ALRI) in their first year of life, Michael Binks’ research through the Menzies School of Health Research is helping to guide future strategies for its prevention.

“Respiratory diseases are a significant health problem in the Territory, representing the largest cause of preventable mortality in infants and the most common reason for hospitalisation in children under four years of age,” Dr Binks said.

After working in indigenous health for more than a decade, he said he decided to merge his interests in natural medicine and nutritional research in a PhD, fascinated how nutritional science could help improve health by manipulating the immune system with improved nutrition.

“With unprecedented rates of ALRI in indigenous kids in the NT and current research suggesting vitamin D is associated with ALRI in a number of indigenous populations including those in India, the United States and New Zealand, I was intrigued,” he said.

“Research also suggests that populations with darker skin produce less vitamin D in response to sunshine.”

During his PhD research, Dr Binks investigated vitamin D as a known defender of the immune system and its possible role in reducing current levels of ALRI in indigenous infants.

“I followed a cohort of indigenous mothers and infants from pregnancy to seven months of age,” he said.

“While vitamin D levels were normal during most of the pregnancy, they dropped sharply towards term, and four in five of the indigenous infants were born with cord blood vitamin D insufficiency.

“Even more interesting was that significantly lower cord blood vitamin D concentrations were found among infants subsequently hospitalised with an ALRI, compared to those who were not.”

Dr Binks will graduate with a PhD at the Charles Darwin University ceremony today.

His thesis was titled Prevention of Acute Respiratory Infections among Indigenous Infants of the Northern Territory.