

# Neonatal Profile

## Dr Max Berry



*... Dr Max Berry Consultant Neonatologist with Capital & Coast District Health Board – working in the Wellington Neonatal Intensive Care Unit (NICU), and Senior Lecturer in Paediatrics and Child Health at the University of Otago, Wellington.*



**Dr Max Berry** spends half her work time as a consultant neonatologist at Capital & Coast District Health Board (CCDHB), Wellington Hospital. Here she works with premature or unwell babies needing intensive care. The other part of her role is as a senior lecturer in paediatrics at the University of Otago, Wellington, where she leads clinical and pre-clinical research teams. She is also Deputy Director of the Centre for Translational Physiology.

Dr Max Berry is pioneering how a baby's early life environment influences their long-term health. Background risks for health issues such as diabetes are just as strongly influenced by the early life environment as the more traditional environmental factors that we know about (such as your exercise, whether you smoke, etc).

"We know that the first years of life are incredibly influential. It's likely that for different organ systems, for different conditions, this is the window of time that makes the biggest difference to an individual's lifetime trajectory for health and well-being."

"In very early life there is this incredible plasticity – the fetus and baby respond to all sorts of environmental cues and stimuli. For instance, even parental diet and stress levels before conception and during pregnancy have a role to play in determining their baby's later health and health risks."

"By understanding how these early-life factors influence well-being later in life, we may eventually have specific therapies

targeted against the mechanisms that have driven individuals' risks and needs."

"Our research suggests that nutrition in the first month of life is likely to be important in setting your diabetes risk later on, whereas gestational age at birth has a powerful influence on cardiovascular disease risk. We also know that there are some really complex interactions linking gestational age, gender, multiple birth and a whole host of other factors that need to be explored further."

 "My clinical work with extremely vulnerable babies and their families informs my research and makes it real. This interplay between the clinical and research spheres makes a full translational cycle".

**- Dr Max Berry**

**To learn more about neonatal research please head to**

[littlemiraclestrust.org.nz/research](http://littlemiraclestrust.org.nz/research)

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## NEONATAL RESEARCH

a core focus of The Little Miracles Trust

*One of the three core objectives of The Little Miracles Trust is to aid neonatal-related medical research. Compared with other medical areas, neonatal care is a comparatively fledgling clinical field with much of the learnings gained only late from in the 20th century.*

Babies with an early and/or rough start to life require specialist, intensive care. The care they receive can make a difference to their lifetime health and well-being. While there is not a direct correlation, we already know that premature babies are more likely to be over represented with certain health conditions related to neurological development – for example, cerebral palsy.

We support research so that the support and care delivered is enhanced and the long term consequences of prematurity are better understood. This therefore enhances care and lives of the thousands of babies who will be cared for in the future.

### **This research is both important and in many cases world leading.**

**For example, the Perinatal Society of Australia & New Zealand awarded Maria Saito-Benz (part of Dr Max Berrys team) was awarded the New Investigator Award for Neonatology for the NIMO-AI study.**

### **Around 5,000 babies are born prematurely in New Zealand each year.**

**Dr Max Berry and her team of researchers and clinicians are undertaking some remarkable work into the enhanced understanding of the long-term impacts of prematurity.**

#### **Their work includes:**

- *Looking into how blood transfusions are given and the potential to enhance effectiveness*
- *The 'NIMO for Anaemic Infants ('NIMO-AI')' observational studies that are looking into how treating anaemia (a very common problem for preterm infants) with blood transfusions changes the oxygen levels in a baby's brain and other organs*
- *Researching the effect of nutrition in the first month of life and the long term effects*
- *Using data to assess the trends in the long term outcomes for premature babies.*



*"... that we are now able to care for babies born at less than 500 grams at the extremes of prematurity and send them home to grow and develop and become independent people in their own right is a triumph" - Dr Max Berry*

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