



*Read The Red*



*January 2025*

**Are you all reddy, are you red, red,  
reddy, are you red, red, reddy,  
LET'S GO!**

**Can we make this year's walk even better?**

**Can we raise enough for one whole research grant? (\$65,000)**

**Set a date, get some sponsors, invite your friends, invite your MP, ask other clubs, rotary, to join you, find a place for a cuppa when you have finished!**

**WEAR YOUR CORD BLOOD SHIRT or anything RED,**

*If you need a reminder where this year's grants went then follow these two links.*

[Suzie Miller](#)

[hudson\\_institute\\_x\\_inner\\_wheel\\_foundation  
\(1080p\).mp4](#)

[Richard's project](#)

[https://drive.google.com/file/d/1QsMEiCqnyVq6ysrYmA3cBZAK7f9PiI\\_/view?usp=sharing](https://drive.google.com/file/d/1QsMEiCqnyVq6ysrYmA3cBZAK7f9PiI_/view?usp=sharing)

IWAFT - DEPOSITS FROM 1/10/2024 TO 31/12/2024

NAME	AMOUNT
<b>COST OF MERCHANDISE - DONATIONS</b>	
Warwick Williams Real Estate	\$500.00
Rotary Club of Five Docks	\$1,000.00
<b>MERCHANDISE SALES</b>	
Conference Stall	\$359.00
A62 – Notebooks & Pens	\$49.00
A77 – Notebooks at district Meeting	\$450.00
A77 – Sunshine Coast – notebooks	\$130.00
IWC - Gosford – notebooks	\$100.00
A51 – Notebooks	\$200.00
<b>DONATIONS – CLUBS &amp; DISTRICTS</b>	
IWC Warragul	\$34.55
IWC The Hawkesbury – 5 cent project – raised over a year	\$348.36
IWC Kinglake Ranges	\$1,000.00
IWC Balmain – proceeds from leftover Conf 2024 CBR stall	\$252.00
A62 – stalls	\$634.50
A62 – CBR stall at District meeting	\$480.00
<b>DONATIONS – IN MEMORIAL</b>	
IWC Warragul - donations given at funeral of Elaine Berryman in	\$190.00
<b>DONATIONS - FUNCTIONS</b>	
IWC Holdfast Marion – fashion parade	\$2,000.00
IWC Cranbourne - event	\$1,335.00
IWC Balmain – Community Service Event – Aust. Skin Foundation	\$500.00
<b>GENERAL – CONFERENCE</b>	
CBR Stall	\$1,714.35
Raffle at conference	\$620.00
<b>TOTAL</b>	<b>\$11,896.76</b>



One day one of our District reps, Franca Rodilloso, had a knock on the door and when she answered it, it was a representative from The Australian Skin Foundation telling her that they were offering free skin checks for anyone in her area and would be parking in her street. It didn't take long for Franca to seize the opportunity to get the word out to other members of the Balmain club and before you knew it they had organised a morning tea, coffee and sausage sizzle for patrons of the van which would park outside Franca's drive.

As well as spreading the word about our national project they raised \$500. What a great example of seizing an initiative and going for it. Well done Franca and Balmain.

If you have a special CB event send some photos and a written paragraph or two for inclusion in the Read The Red.

Franca has also been busy raising some funds towards the purchase of our next merchandise item for Cord Blood Research. We already have \$1500 towards the cost and need another \$2000 for this to go ahead. Acknowledgement will be given of course. Do you have a Rotary club near you who are looking for a project to support. Of course, general donations are always welcome but by sponsoring our merchandise item we can multiply our funds many times over.



**Find a chair, get comfortable and BE INSPIRED as you read this report from a 2023-2024 Cord Blood Research Grant Recipient.**

**Project Title:**

Mapping the immune defect in Type 1 Diabetes (T1D) to the immune cells in cord blood at the single-cell level

**Principal Investigators:**

Dr Ying Wong, Dr Timothy Sadlon, Prof Simon Barry (The University of Adelaide)

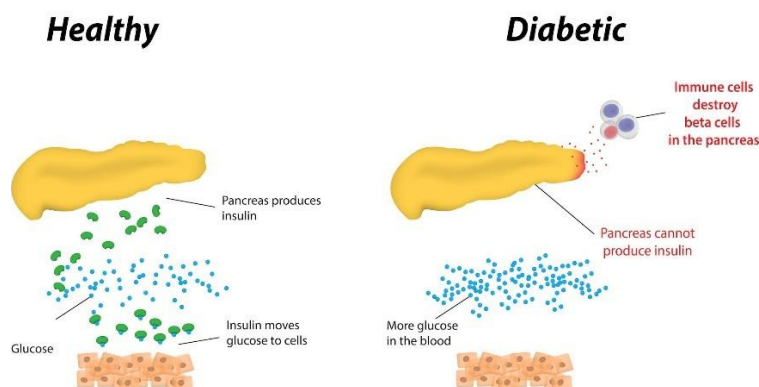
**Dear Members of Inner Wheel Australia,**

On behalf of our research team, I am excited to share some exciting progress from our project, which has been made possible by your incredible generosity and dedication to our cord blood research.

**What are we trying to achieve?**

Type 1 Diabetes (T1D) is a lifelong disease that affects children and families all over the world. It happens when the immune system mistakenly attacks the cells in the body that make insulin. Children with a parent or sibling who has T1D are more likely to develop it because they can inherit a higher risk from their family. Our goal is to understand the very first immune changes that happen in children at risk of developing T1D—changes that happen long before symptoms like high blood sugar appear. By studying cord blood collected at birth from babies at high risk of T1D, we hope to find early warning signs of the disease. These findings could help develop new ways to detect T1D early, prevent it, or delay its onset in the future.

***Type 1 Diabetes***



(Image from My Health Explained)

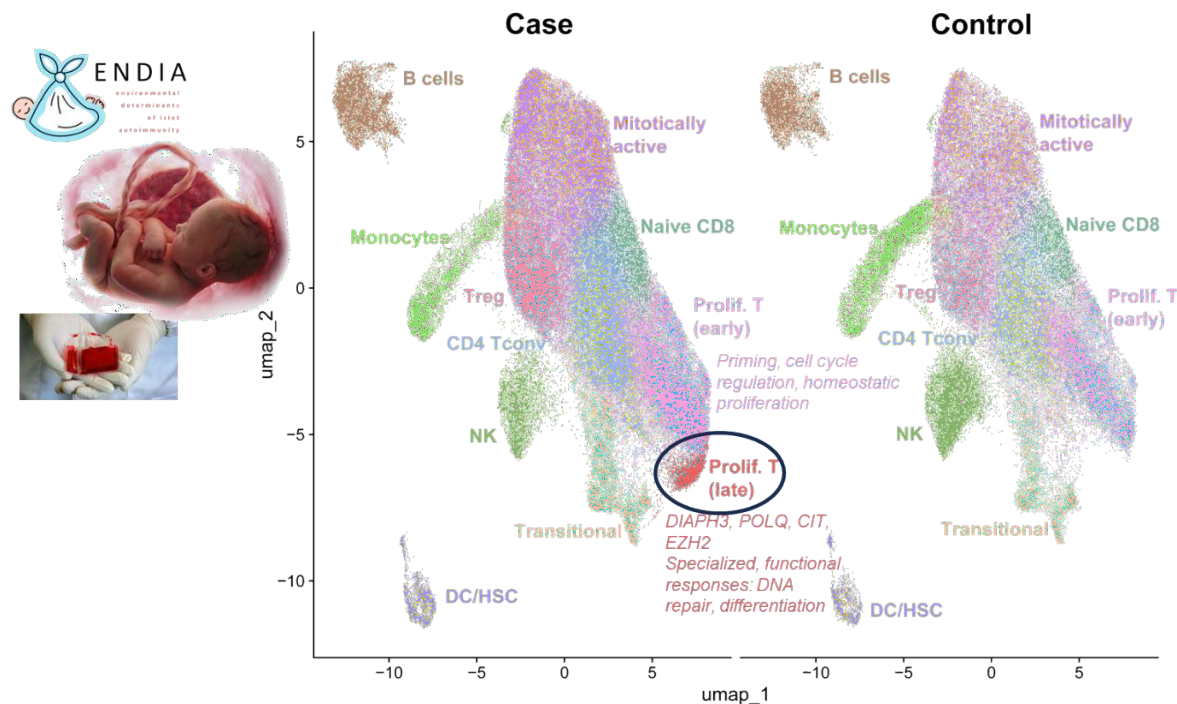
**How your support has helped**

With your support we have used cutting-edge technology to study immune cells in cord blood more closely than ever before. Initially, we planned to use a method called single-cell RNA sequencing (scRNA-seq) to understand which genes are active in individual cells.



However, with access to even better tools, we were also able to include single-cell ATAC sequencing (scATAC-seq), which helps us understand the 'on/off switches' that control these genes. By combining these tools, we've gained a clearer picture of how genes work and are regulated in the immune systems of babies at risk of T1D. This is important because it helps us understand why some babies develop T1D while others do not.

## What have we found?



**UMAP plot of cord blood immune cells from children at risk of T1D.** This plot shows the immune cells found in cord blood, with each dot representing a single cell. The different colours represent groups of similar cells, based on their activity and function. The cells in red are unique as they were found only in children who progressed to Stage 1 T1D by 12 months of age (**Case**). These cells were not present in children who stayed healthy (**Control**).

By studying cord blood samples, we discovered a unique group of immune cells (circled in the figure) that was found only in children who later progressed to Stage 1 T1D by 12 months of age. These cells were not present in children who stayed healthy. This is exciting because these immune cells could help us figure out how and why the immune system stops working properly. We believe these cells may be "pre-programmed" from the start to act differently, which might explain the early steps that lead to T1D.

## Why is this important?

Type 1 Diabetes often develops silently, with no visible symptoms, until it's too late to prevent the damage. By identifying these early immune changes in cord blood, we can open up a critical window for early detection and intervention. This funding allowed us to use this unique resource to reveal the first warning signs of T1D, long before clinical symptoms appear. This could potentially mean a future where families are no longer blindsided by a T1D diagnosis, and where treatments focus on prevention rather than management.

## Next steps

While much progress has been made, the journey is far from over. Our next steps include studying the unique immune cell population we have identified in greater detail, combining findings from scRNA-seq and scATAC-seq technologies, to reveal how these cells develop and contribute to T1D.

We are also looking at how these immune cells evolve as children grow, using their peripheral blood samples collected over time. This will help us track how early immune changes might lead to the onset of T1D.

None of this would have been possible without the vision and generosity of Inner Wheel Australia. Your fundraising efforts have given us the tools to make discoveries like this. As an early-career researcher, the opportunity to lead this project, with the generous support of Inner Wheel Australia, means so much to me personally and professionally. This has helped me build critical research skills while contributing to the fight against T1D.

I had the pleasure of attending one of your gala dinners previously, it was an unforgettable experience. Seeing you all come together with such energy, joy and passion for making a difference left a lasting impression on me. Your support for research like ours shows not only in your fundraising efforts but also in the strong sense of community you share.

I hope these updates inspire you as much as your support inspires us. If you have any questions or would like to know more, it would be our pleasure to share in greater detail!

With heartfelt thanks,

**Sincerely,**

Ying Wong, PhD

Postdoctoral Fellow (School of Biomedicine)

The University of Adelaide

If you have any questions about the above article Dr Ying Wong is happy to answer them;

**Can we fill the coffers to  
award three grants of \$65,000  
each this year?**





*Are you still getting ready to walk Two For Ten in 2025, Make it a fun day!  
Any local celebrities you could persuade to walk with you?*

Walk

Two for Ten in

March/April/May 2025

Show the Conference videos

Don't leave it until the last minute; **Plan**  
**your walk**

Get sponsorship forms out in  
your community!

