

## *Nhā Dhuwal ‘Immune System’? / How do our immune systems work?*

### – English Synopsis

#### **Introduction**

Here at ARDS we bring understanding to YolŃu people on stories such as immunisation through YolŃu Radio, and have been doing so for a long time. ARDS has been sharing stories to help straighten the story about immunisations. The team realised that if we don’t understand what the immune system is, then we will never understand what immunisations are.

In this radio show, Dr Jamie Mapleson, Nori Hayashi and Sylvia NŃlpinditj talk about the immune system, by explaining the importance of White Blood Cells and how they work in our body to fight infection. We use skin infections as an example to tell this story and explain how we can pick-up and spread germs.

This deeper story will help us understand how our body works to protect us from all kinds of germs. This is what Balanda call ‘the immune system’.

We hope this story will help YolŃu understand better why immunisations are important. Especially as part of the COVID-19 vaccine rollout, so that YolŃu people will be informed properly about how immunisations work and why they are important.

#### **Program Summary:**

In this radio episode, Sylvia NŃlpinditj, Dr Jamie Mapleson and Nori Hayashi talk about our immune system and how it works to protect us from illness. Dr Jamie explains the story in English and Sylvia and Nori share the story in YolŃu matha.

Dr Jamie uses the visible example of skin infections, which often manifest in boils and/or sores, to explain about the body’s immune response to infection. The team discusses what ‘pus’ is and compare it to a ‘war ground’ where White Blood Cells and bacteria fight and kill each other. This leads into an explanation of the role of White Blood Cells and our lymph nodes in fighting infection.

A deeper discussion also takes place, using metaphors about the four different types of WBCs in our body that fight bacteria and how their roles differ within the immune system. Dr Jamie explains that some WBCs work as ‘frontline’ fighters in the war between our immune system and an infection, eating the bacteria. Other WBCs work as ‘messengers’, carrying information back to the ‘general’ WBC about the bacteria. This ‘general’ stays in the ‘main camp’ of the war zone (a metaphor used to describe our lymph nodes) and instructs our WBCs. The ‘general’ orders another type of WBC to make a weapon or ‘spear’ to fight this specific type of bacteria which the ‘messenger’ WBCs have found in the body. The general sends this ‘spear’ through the blood to the site of infection to kill the bacteria. It is all this activity that makes our lymph nodes become hot, swollen and sometimes painful when we have an infection.

Finally, the team discusses the ability of some WBCs to remember details about the specific bacteria which the body is fighting, like its shape, what it looks like and its weaknesses. This means that the next time the same bacteria attacks the body, these WBCs can quickly kill the bacteria, so we don't get sick from the same bacteria a second time. Dr Jamie explains that this is what doctors call 'immunity' or 'to be immune from' a bacteria.