Cancer Council Victoria

Research We Fund

Project:

Identifying better therapies for blood cell cancers

Research team:

A/Prof Louise Purton,
A/Prof Carl Walkley,
Dr Meaghan Wall,
Dr Helene Jousset

Institution: St Vincent's Institute of Medical Research

Cancer type: Myelodysplastic syndromes

Years funded: 2019–2021

What is the project?

The myelodysplastic syndromes (MDS) are a group of malignant blood cell diseases that arise from blood-forming stem cells which can develop into leukaemia. Other than a transplant from another person (which is not an option for most patients) there is no cure for MDS.

We have developed models of MDS and used them to perform a very large drug screen to identify better treatments. We have identified 87 drugs that are already used to treat patients with other diseases as having promise to cure or better treat patients with MDS. We are now performing studies to determine their effectiveness and to identify new treatments for patients and get these treatments into the clinic as soon as is possible.

What is the need?

Stem cell transplants are the only chance for a cure for patients with MDS, however most are either too old or cannot be matched with a suitable healthy donor. Other treatments such as blood transfusions only offer shot-term relief of symptoms and there are only thee drugs currently available with more than 50% of patients not responding. That is why we need to identify better treatments for patients to provide them with a chance for a cure.

What are you trying to achieve?

I'm aiming to identify better therapies for patients with MDS and I have assembled an outstanding team of clinical collaborators to help take our findings into clinical trials to achieve this goal. In five years from now I hope that more of my research, including studies funded by Cancer Council Victoria, will be reaching the clinic to improve outcomes for patients with a range of blood cell cancers and other cancers.

Project timeline

Timeline	2019	2020	2021
Confirm drugs that completely kill the MDS cells and spare healthy cells in studies performed outside of the body.			
Complete trials of two drugs in one of our MDS models. Commence treatment of other MDS models			
Identify drugs that completely kill the MDS cells in our models of MDS. Prepare a manuscript describing these results for publication in a high-profile journal.			

"I'm aiming to identify better therapies for patients with MDS and I have assembled an outstanding team of clinical collaborators to help take our findings into clinical trials to achieve this goal."