

# What makes some cancers more deadly?

April 23 2014

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Dr Lauren Thurgood is investigating what makes a common form of leukaemia more deadly.

A Flinders University researcher is searching for answers as to why some leukaemia sufferers live a normal lifespan while others succumb to the disease within months.

Dr Lauren Thurgood, based in the Department of Haematology and Genetic Pathology, is studying a common form of leukaemia called [chronic lymphocytic leukaemia](#) (CLL) to better understand why a sub-

group of patients with this particular type of cancer respond poorly to treatment.

Comprising about 30 per cent of all leukaemias, CLL is a slow-growing form of the disease in which the bone marrow makes too many [white blood cells](#).

"I'm looking at proteins in the cancer cells to try to work out why some patients have a more pathogenic disease while other people who have CLL live longer and don't have any problems," Dr Thurgood said.

"We know from previous research that people with a poor prognosis have a [gene defect](#) that makes them have a more aggressive disease but we still need to understand at a cellular level what that gene defect does to the cells," she said.

"The cancer cells basically talk to surrounding cells in the [bone marrow](#) so we want to know how they interact with the [healthy cells](#) and how they're told to stay alive.

"Once we know how the cells communicate, we could look at developing a targeted drug therapy to stop the interaction, which would essentially prevent the [cancer cells](#) from taking over."

With CLL typically diagnosed in older adults, Dr Thurgood said the disease was set to become more prevalent as the population ages.

"The fact we're living longer means the frequency of the disease is going to skyrocket because a lot more people will be diagnosed with it, therefore any new information will become crucial to prevention and treatment.

"Once we've refined our research methods and we know more about

CLL we can apply our knowledge to other leukaemias, including the pathogenic childhood cancers."

Provided by Flinders University

Citation: What makes some cancers more deadly? (2014, April 23) retrieved 5 May 2024 from <https://medicalxpress.com/news/2014-04-cancers-deadly.html>

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