

UQ research may lead to drug to fight leukaemia

7 May 2014

A molecular 'target' that could lead to a drug to fight leukaemia is in the sights of a team of University of Queensland researchers.

Professor Tom Gonda, from UQ's School of Pharmacy, said the team had found that the 'docking' of one protein, the Myb protein, with another protein, the p300 protein, was essential for the development of acute myeloid leukaemia, one of the deadliest types of leukaemia.

"Our data identifies the critical role of this Myb-p300 interaction and shows that the disruption of this interaction could lead to a potential therapeutic strategy," he said.

"This finding could lead to our team developing a drug to block this interaction and stop the growth of not only acute myeloid leukaemia cells but probably the cells of other types of leukaemia as well."

He said the Myb protein was produced by the MYB oncogene, a gene that had the potential to cause cancer and was required for the continued growth of leukaemia cells.

"However, it's important to note that MYB is also essential for normal blood cell formation so we need an approach for targeting it that won't completely disrupt normal blood cell production.

"Our research shows that normal blood cells can continue to form even when the Myb-p300 interaction is unable to occur, suggesting that a drug that blocks the interaction could be safe for use in patients.

"This work is at a very early stage and, although a high-risk project, it has the potential to produce large benefits in the fight against leukaemia and, possibly, other cancers.

"Drug development and subsequent clinical trials are long processes but we are hopeful that this research has a promising future."

Much of the research was done by Dr Diwakar Pattabiraman while he was a PhD student in Professor Gonda's laboratory.

Professor Gonda said that as Myb was not a conventional target for drugs, the team would also examine other ways to target MYB, such as targeting the genes and proteins that work 'downstream' of MYB.

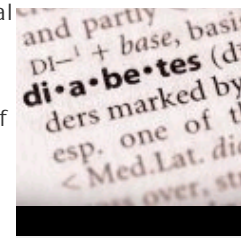
"If we can block the downstream molecules that are controlled by MYB, we may end up with the same result," he said.

The research was published in the prestigious haematology journal [Blood](#).



HEALTH + MEDICINE

Expert available for Dental Health Week, 4-10 August 2014 5 August 2014

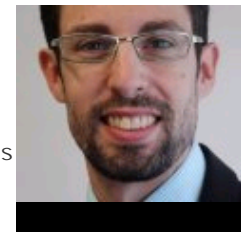


UQ experts for National Diabetes Week 11 July 2014



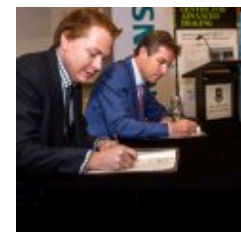
Scientists do

Queensland proud in global fight against cancer 8 July 2014



UQ

pharmacist scoops second national award 30 June 2014



UQ and Siemens

collaboration to

Share link:

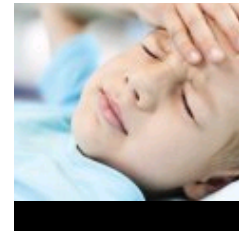
<http://tinyurl.com/mk2ebdv>

Subscribe to the UQ News weekly newsletter

Subscribe



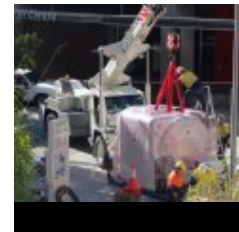
advance MRI
technology 27
June 2014



Study
could lead
to better
treatment
for child
brain
injuries 26

June 2014

Homeless most at risk of poor
oral health 16 June 2014



Ultra-cool
clinical
scanners
set to heat
up

Queensland
medical
research 14 June
2014

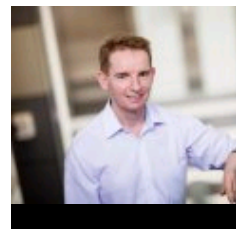
**HEALTH + MEDICINE,
INTERNATIONAL
PROJECTS**



Young

'superbugs'
innovator
receives
prestigious
Rolex Laureate
25 June 2014

RECENT HEADLINES



New

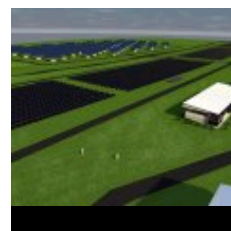
research to
help predict
teen suicide 8
August 2014



Award-
winning
author

releases
crime thriller
that keeps
readers
guessing 7

August 2014



Work
starts at
UQ
Gatton
on solar

research
facility 6

August 2014



[More headlines](#)

[Home](#) › [UQ research may lead to drug to fight leukaemia](#)

Brisbane St Lucia, QLD 4072

+61 7 3365 1111

[Other Campuses: UQ Ipswich,
UQ Gatton, UQ Herston](#)

[Maps and Directions](#)

© 2014 The University of Queensland

A MEMBER OF



edX

 GROUP OF EIGHT

[Privacy & Terms of use](#) | [Feedback](#)

Authorised by: Director, Office of
Marketing and Communications
ABN: 63 942 912 684
CRICOS Provider No: 00025B

QUICK LINKS

- [For Media](#)
- [Emergency Contact](#)

SOCIAL MEDIA

NEED HELP?

EMERGENCY

[3365 3333](#)

EXPLORE

- [Giving to UQ](#)
- [Faculties & Divisions](#)
- [UQ Jobs](#)
- [UQ Contacts](#)
- [Services & Facilities](#)
- [Login](#)