LEUKAEMIA HURDLES NOW IN THE PAST FOR KATE

Kate McLennan got a bike for her 8th birthday that she never learnt to ride.

Not long after her birthday, Kate, now 19, started feeling tired and cranky. Her parents, Bronte and Tim, initially thought she had a virus, but she didn’t improve and she started bruising easily. After several trips to the GP she distinctly remembers the ambulance ride she had to a Brisbane hospital.

Blood tests showed Kate had ALL and she began treatment. She spent the first three weeks after her diagnosis in hospital, and over the next three years, her resilience and fortitude saw her overcome several major hurdles; the worst being a rare fungal infection.

“It was everywhere, in my lungs and in my joints – shoulders, legs and elbows. I had to stop treatment and had lots of surgery to remove the fungal infection which was washed out of my joints,” explained Kate.

“I was off school for quite a while.”

During the six months Kate spent in hospital fighting this infection, her grade three teacher brought in a bucket of tadpoles to show her how a school project was progressing. And when Kate returned to school, her class, which had previously been in a room up a flight of stairs, was relocated to ground level.

“I didn’t enjoy going to school because I stood out, but I had no choice,” said Kate, who was in a wheelchair and still hooked to a nasal gastric tube.

“I had to learn to walk again and I had to learn to eat again too, because I was totally not interested in food.

“Socialising was pretty difficult. One of my best friends before the illness was very sporty. Afterwards, I made a new group of friends who were the quieter kids.

“In grades three to seven I was sick and recovering. I had to learn to deal with not being able to participate. During sports class, I’d sit and watch or go to the library.

“The easiest transition was to high school, when I wasn’t visually sick.”

Kate completed her course of treatment in 2005. The following year she had pins put in her left leg, which was shorter and bowing inwards, and her mum (a nurse) would lengthen the screws every night.

Continued on page 6...
YOUNG BLOODS CHILDREN’S PROGRAM

More than half of all childhood cancers are blood cancers and the Leukaemia Foundation is dedicated to improving the survival and quality of life of these children.

In response to identified unmet needs of children, particularly the physical and psychological impact of blood cancer from the time of diagnosis, the Leukaemia Foundation has developed the Young Bloods program.

Head of Support Services at the Foundation, Anthony Steele, said Young Bloods focuses on providing exercise to children before, during and post treatment, and to their siblings. The program also provides emotional support to children with blood cancer and their families.

“Exercise has been proven to reduce a child’s recovery time following chemotherapy treatment and to improve quality of life,” Anthony said.

Providing exercise to children before, during and post treatment is not consistent across Australia and best practice information is starting to become available only now. Exercise programs across the country also have been identified as being under resourced.

Anthony said some amazing psychosocial programs were already in place across the country and these would not be duplicated.

“Based on a state-by-state analysis, the Foundation will provide psychosocial services that focus on keeping children in contact with their peers during extended hospital stays, providing emotional support for children, parents and siblings, and access to psychologists and to diversional therapies (art, music, meditation therapies, etc.).

NEW EDUCATIONAL BOOKS FOR CHILDREN

The Leukaemia Foundation has produced two new educational booklets – Ben’s Stem Cell Transplant and Jess’ Stem Cell Donation.

The two beautifully illustrated publications are aimed at children.

One follows the story of Ben, as he prepares for a stem cell transplant. It explains what stem cells are and what tests he’ll have. He meets the hospital staff and visits the stem cell transplant unit with his mum and dad. He learns about chemotherapy and radiotherapy, how the side-effects of his treatments will be managed, explores emotions and what happens after he’s discharged from hospital.

In the second book we meet Jess who is donating her stem cells for her brother’s transplant. This story covers the range of preparations and procedures this important role involves.

Both books are based on original versions produced by the Children’s Cancer and Leukaemia Group in the UK. Australian health professionals and Leukaemia Foundation staff have edited the content to reflect practices here in Australia, and the illustrations are by Australian artist, Christine Sharp.

Hard copies of the books are free and available from the Leukaemia Foundation, at major treatment centres, and the books can be downloaded from our website: www.leukaemia.org.au.
LATEST RESEARCH PROJECT INVESTIGATES ALL

ALL is the focus of a research project that received funding in the Leukaemia Foundation’s latest round of annual research grants, announced in March.

A Grant-in-aid (funding of $100,000 over 12 months) went to Dr Cedric Tremblay (Australian Centre for Blood Diseases, Monash University) for Finding new and more efficient treatments for T-cell acute lymphoblastic leukaemia.

Dr Tremblay’s grant is one of 21 additional research projects in the Foundation’s 2014 round of annual funding, totalling $3.6million. This builds on the Foundation’s ongoing National Research Program of 50 research projects already in progress (worth $9.14 million), plus a $150,000 contribution to the Australasian Leukaemia & Lymphoma Group Tissue Bank1.

In its commitment to a future where blood cancer can be cured, the Foundation currently funds 71 research projects at leading research institutions across Australia, from 2014-2019 – an investment of $12.89 in research.

Over the next five years there also will be considerable further investment in research by the Foundation, with the addition of each year’s new round of National Research Program grants and other research funding.

1 The Leukaemia Foundation makes an annual contribution to the ALLG Tissue Bank (a total of $1.16 million since 2002).

FINDING NEW AND MORE EFFICIENT TREATMENTS FOR T-CELL ALL

Dr Cedric Tremblay is investigating possible new treatments for a type of ALL which often responds poorly to treatment.

Known as T-ALL, this type of leukaemia is characterised by mutations to genes controlling the production of immature T-cells (a type of immune cell).

Dr Tremblay and his team have shown that these mutations lead to the activation of a protein that binds to DNA – STAT5 – that is associated with poor outcome for T-ALL patients.

“From our research, we suspect that STAT5 activation is important to T-ALL development,” said Dr Tremblay.

“To understand the importance of STAT5 in this blood cancer, we’re developing a laboratory model to identify all the genes and signalling pathways involved in activating the protein.”

Dr Tremblay’s research group already has found that mutations of the genes controlling the Interleukin-7 (IL-7) signalling pathways result in the activation of STAT5 in T-ALL, but they suspect there are others.

In parallel to this line of investigation, the team also is blocking the production of STAT5 via the IL-7 signalling pathways. IL-7 is critical to the immune system development and it appears the pathway could be essential to the progression of T-ALL.

The group is testing a new class of anti-cancer drugs that specifically target IL-7.

If the results are promising, Dr Tremblay hopes to trial the drugs in combination with chemotherapy, in relapsed T-ALL.

FOUNDATION-HOSTED SCIENTIFIC MEETING – ONE OF WORLD’S BEST

“One of the best haematological science meetings in the world” is how Professor Charles Mullighan described the 5th New Directions in Leukaemia Research (NDLR) 2014 meeting.

Hosted by the Leukaemia Foundation every two years on the Sunshine Coast, this year’s NDLR was attended by 150 delegates and Prof. Mullighan, a world leader in applying genomics to the study of leukaemia, was referring to the calibre of the meeting when he gave the 2014 Donald Metcalf Oration*.

NDLR (March 30-April 2) brought together internationally and nationally recognised leaders in leukaemia and related research with expertise covering the full spectrum from ‘bench to clinic’.

The aim of NDLR is to bring together scientists and clinicians to discuss and debate current concepts in our understanding of the molecular basis of leukaemia and other haematological malignancies, emerging paradigms and breakthroughs at the forefronts of research in these areas, and new therapies emerging in the clinic.

* The oration recognises an Australian scientist/clinician who has made an outstanding contribution to our understanding of haematological malignancies, their diagnoses and treatment.

(Read an Eleven Questions interview with Professor Mullighan on pages 4-5)
ELEVEN QUESTIONS

Australian clinician-scientist, Professor Charles Mullighan’s research uses genomic profiling and experimental modeling to investigate the genetic basis of acute leukaemia, especially high-risk acute lymphoblastic leukaemia in children. He has spent much of his research career working at the St Jude Children’s Research Hospital in Memphis (U.S.), is Cancer Theme Leader at the South Australian Health & Medical Research Institute (SAHMRI) and Chair of Cancer Research at the University of Adelaide.

1. Describe your role in researching ALL.

My research has three main aspects; discovery work, where we use genomic and sequencing approaches to define the full landscape of genetic changes that causes ALL to develop and whether patients with ALL will respond to or fail therapy; using that information to work out how those genetic changes function in leukaemic development; and picking the right ones to translate to the clinic in diagnostic tests or new treatments.

2. What led you to dedicate so much of your career to this disease?

Some planning and some serendipity. Training as a haematologist in the early 2000s, genomic approaches were just emerging and I saw a real opportunity to get involved in that work, to understand leukaemia better. That work has grown and developed organically and we’ve started making some discoveries. I also worked at a hospital where the main treatment focus was ALL.

3. Much of the improvement in survival rates in the last 20 years has been in children. What strategies, used by the paediatric sector to achieve such good outcomes, are applied in the adult sector?

Many improvements in childhood leukaemia outcomes have been better trial design and better use of agents. They’re non-targeted agents so part of it was the scheduling of treatments and the way the drugs were combined and administered. Another important aspect was risk-adapted therapies; that is, identifying risk features in each patient at diagnosis and using those to guide the intensity of therapy. Assessment of response during therapy is important; measuring minimal levels of residual disease (MRD) and tailoring or adjusting therapy depending on how good the response is during treatment. Early in therapy, the level of bone marrow and/or blood MRD is measured. Those levels are important predictors of subsequent outcome. If you have a child with ‘standard risk disease’ and their response is excellent then their treatment won’t be intensified, but if they present with high-risk factors and/or don’t respond very well, their therapy will be changed. In adults, some of those things are being repeated; MRD is being used to guide therapy in adult ALL and targeted therapies are being used. But the success of therapy in adult ALL is inferior to that of children and we’re just starting to fully understand the reasons. Part of that is the biology and genetics of the disease and part of it is the nature of an adult versus a child and issues related to treatment adherence and compliance.

4. What do you see as the next step in curing all people with ALL?

There won’t be a single change; it will be incremental. Some treatments that are not subtype or genetically driven are applicable to all patients. We need a more complete understanding of the basic biology and to use that information to build the right faithful models of leukaemia to then test some of the newer approaches. The next step is getting them into rigorously controlled trials to evaluate how effective they are and part of those treatments are going to be subtype specific. Another part may be drugs that target epigenetic changes and part of it will be cellular therapies that actually harness the immune system as well.

5. In Australia we have the ALLG Tissue Bank. What is a tissue bank?

It’s a bank, but instead of storing money, it stores the tumour or corresponding non-tumour material from patients. What we try and do with most tissue banks is to preserve the material in its native state; that is, we freeze it down as living cells that can then be thawed again and used for a variety of different purposes – genetic studies, other experiments, or testing drugs. They’re absolutely essential to current research in leukaemia.

6. In your experience what are the benefits of a tissue bank and how can it help researchers to find cures?

None of my research would have been feasible without tissue banks. For those of us who walk this line between basic discovery, using patient samples to help us understand the disease, and taking it to the clinic, you must have these large repositories so we have many, many samples to really understand the full landscape of what’s driving leukaemia. Having large tissue banks with large numbers of samples is so important.

7. What are the most promising studies currently seeking to cure ALL?

I’d break them down into the different approaches they’re using, starting from fundamental large-scale efforts in the U.S. and around the world to understand the genetics of leukaemia. Some studies exploring different therapies (drugs or biological agents) look very promising, for instance drugs that have target kinases that accelerate the growth and proliferation of leukaemia. Drugs that change the epigenetic landscape, modifications of DNA, and cellular (immune) therapies are just three examples that look very promising in ALL.

8. Some of your research focuses on the genomics of high-risk ALL. What have you learned that will help people with high-risk ALL into the future?

The single most clinically relevant result is a substantial fraction of children and adults with ALL we’ve identified who have genetic changes that drive proliferation of cells that were previously not suspected. This is important because many of these patients...
have high-risk disease. They completely fail to respond at all to current chemotherapy, but if we add in tyrosine-kinase inhibitors we can have dramatic responses. That’s not all of high-risk ALL, but is one of the most exciting findings in the field that’s really generated a lot of interest.

9. With new studies identifying more genetic markers affecting ALL prognoses, what are the implications for a government trying to fund an ever-increasing number of targeted therapies and associated diagnostics?

There are multiple issues. One that specifically refers to genetic markers is the diagnostic aspect. If we are now finding specific genetic changes that determine poor outcome, one might want to identify those at initial diagnosis. Some genetic changes are present in only a fraction of leukaemias, so not only do we need sophisticated genetic tests, they must be very sensitive and allow us to pick up low-level mutations, so there’s a technological and diagnostic challenge as well.

The second aspect is integrating that genetic information with clinical work. To construct a trial that tailors a new therapy to the right patient, perhaps because of an underlying genetic change, you need to quickly integrate those two approaches and that’s challenging as well. The next step is doing a formal trial that might look at many hundreds of patients and compare them with previous outcome results of existing therapies and that can be challenging – to have enough patients for a validated study. That requires coordination across the country or indeed around the world. Funding it is expensive and there are a couple of implications. You have to think about what the test would be. Is it going to be a very broad genetic test like a genomic test and that is expensive, or is it going to be a focus test, so once you’ve found an important genetic change, you develop that into a single genetic test as well, but that certainly adds to the cost of treatment. Targeted agents are often expensive. They’re new agents and they may not be fully marketed yet and clinical trials are expensive to run, so yes, funding is absolutely important. Another aspect is something we call correlative biology – where you don’t just set up a trial to test how well the drug works, but build in an aspect of having the research labs look at how the drug is working in those patients in the study. That’s very important, to give you that extra level of information to influence the next trial or to allow us to extend it to another type of cancer. Those studies are expensive as well.

10. How are Australian researchers regarded internationally as we seek better treatments for ALL and what is their impact on the world stage?

Australian researchers are very highly regarded – the quality of science is very high for a relatively small country population-wise and a relatively small country in terms of research spending compared with European and U.S. agencies. Some very basic and genetic discoveries and treatment advances have come from Australian studies and key genes found by some Australian institutes. Certain groups are very highly regarded internationally in the clinical management of different types of leukaemias.

11. You are returning to Australia after working in the U.S. What is your new role here and what are you most looking forward to?

I have a hybrid existence, spending part of my year in St Jude and part of it in Adelaide (SAMHRI). I’m most excited about working with a brand new fresh organisation that has tremendous energy, infrastructure, enthusiasm and that brings together lots of different people from around Adelaide, around the country and now from around the world. They aren’t just focused on their individual areas but will collaborate to leverage their expertise, knowledge and infrastructure to tackle key aspects of cancer. It’s also working very closely with the other groups around the country to coordinate studies, so you have the right genetic samples banked and the right profiling done. Australia isn’t big enough to have multiple places to do this, we need to coordinate it to make it maximally effective, and from a translational perspective I think that’s what I see as one of the most important and exciting opportunities, to work as a team around the country but to have SAMHRI leading that effort. The Leukaemia Foundation is absolutely essential in supporting research in Australia in leukaemia and we’re grateful for your support.

For a full transcript of this Eleven Questions interview with Professor Mullighan: nshrimpton@leukaemia.org.au.
“The fungal infection stopped my growth plates and one of my arms is longer than the other, which makes me a human version of Nemo!

“I’m a little bit fragile and can’t do rough and tumble. And I have to careful when I drink (alcohol) because I had issues with my kidneys and liver too.”

Kate has some arthritic pain that comes and goes in her knee and back and says she’ll need a knee replacement eventually.

“But the way medical technology is going, in 20 to 30 years when I need it, it’ll be so far ahead of what we know now.

“I do wonder how I would have been different if it (ALL) hadn’t happened to me – but it did and I don’t know what I’d have become without it.

“For so long – seven years – leukaemia was a big part of me. It was all I was.

“I’ve built my identity around it – I’m different. Now I have to find some other way to be different; I rely on my witty sense of humour!

Now, almost 12 years on from her leukaemia diagnosis, Kate’s in her second year at uni, studying marketing and psychology, she works at McDonald’s and goes out with friends.

And these days, Kate describes having had cancer as being “kind of cool”.

“I used to not like telling people. At that stage of life, if someone is different, it’s a big deal and people used to stare,” said Kate about the many months she was in a wheelchair and had a feed tube.

“But now I make a joke of it. I’ve had cancer and I can lick my elbow and no one else can! And you know what? I’m a medical miracle,” said Kate in jest.

“I think I missed out on a lot of my childhood, and I was always a lot more mature for my age.”

Kate finished school at the end of 2012, along with her original cohort.

“I got an OP9 which I was happy with. I wanted a single digit, which was enough to get into my course.

“Leukaemia is in the past now but it’s always kind of there and I have the physical reminders.

“I do wonder how it affected Mum and Dad and Patrick – my younger brother. Dad, bless him, stayed home (from work) and it became a single parent household, but Patrick turned out okay.

“And if my parents had their breakdowns, they did it privately.

“Mum said it was hard and it was scary, but I’m here now and I got through it.”

Kate’s sights are set on graduating, getting “a real job” and being financially independent.

“And I want to buy a house for mum at Montville - that’s her retirement dream.”

Kate’s mum, Bronte said an offer of help was always there from the Leukaemia Foundation.

“Just after Kate’s diagnosis, the Foundation’s CEO (Adrian Collins) knocked on our door one night and said ‘if there’s anything we can do, just let me know,’” said Bronte.

“And when Kate was being treated at the Royal Children’s, I spoke to a doctor who came from Seattle. When I asked what he was doing in Brisbane, he said, ‘this is where the research is happening’. 

“It was reassuring to know the treatment Kate was getting was world class and the Leukaemia Foundation funds a lot of research.”
TOBI’S NOT JUST BRAVE – HE’S AN INSPIRATION

Kristy and Adam Duggin sensed something was seriously wrong with their three year-old, Tobi, when he became sensitive to their touch.

“He said we were hurting him when we picked him up, and he also started walking with a limp,” explained Kristy.

A visit to the doctor in October 2011 and a blood test showed Tobi had immature white blood cells (lymphoblasts) and low neutrophil and red blood cell counts.

“We had to take him to hospital immediately for a transfusion and the next day he was flown to Brisbane by the Flying Doctor. It was very quick and we didn’t have much time to process anything,” said Kristy, who was breastfeeding her younger son, Rhys, aged 13 months, at the time.

She had to leave Rhys with her mother-in-law, Lee, in Townsville, and when the two of them joined the family in Brisbane a week later, Tobi had been diagnosed with ALL.

“We were absolutely devastated,” said Kristy, a plant operator in the Air Force.

“But you don’t have time to grieve. Having a sick child who’s having chemo is really hard to process in general, and emotionally, I don’t think you ever do – you just learn to adjust your life.

“And how could we explain to Tobi what was wrong? We couldn’t even understand it ourselves. It was the occupational therapist who told him – this is what you have and this is what you have to do.

“I’ve heard him say a few times, ‘I’ve got cancer’. He knows; he just doesn’t really understand.

“Tobi is our hero. He’s such a brave little boy and he does his hardest not to let it affect him. He’s inspirational to us.”

The Duggin family initially stayed six weeks at one of the Leukaemia Foundation’s accommodation villages in Brisbane before getting the go ahead to go home to Townsville for Christmas for two weeks.

This stretched out to a month when Tobi got pneumonia, and in January the family returned to Brisbane so Tobi could continue treatment. They called their Leukaemia Foundation unit “home” for more than seven months, until August 2012.

During this time Adam, a trainer assessor for Main Roads, continued working, but at the Brisbane depot. Kristy, who had taken compassionate leave, took Tobi to hospital most days, and Lee looked after Rhys.

Tobi is on maintenance treatment now, which involves an overnight trip to Brisbane every three months. His last IV chemo is scheduled for December and his last oral chemo in January.

“It’s been fairly smooth sailing,” said Kristy.

But being underweight has been an ongoing challenge for Tobi; a fussy eater who tends not to gain weight.

When he doesn’t eat or refuses to take his medicine, a nasal gastric tube is inserted which is used for his oral chemo as well as food supplements. When MDS News interviewed Kristy, Tobi, weighed around 16kg. He had the nasal tube back in and was being supplement fed overnight to help him gain weight.

Last year Tobi was in Prep and he only missed three weeks all up. This year he’s in Year 1, which he enjoys socially and he has lots of friends.

“The school rings me if his temperature gets to 37.8 and I keep an eye on him. He’s admitted to hospital if it reaches 38. It can happen so quickly.

“He goes back to school after chemo – he’s a little fighter, and we normally take a photo after he’s had chemo and post it to his Facebook page,” said Kristy.

“The page is a record of his ALL journey which has been a huge part of his life – he’s doubled in age from three to six since he was diagnosed.”

Tobi is absolutely fanatical about footy, especially his local team, the Cowboys.

“We didn’t realise just how passionate he was until we found him sobbing after the Cowboys lost their first game of the season.”

When Tobi wrote “Brent Tate – No. 1 man” on his magnetic board, Kristy posted a photo of Tobi with the note on Facebook.

“Can you imagine Tobi’s delight when Brent rang and said ‘I have to meet Tobi’. He was over the moon,” said Kristy.

Tobi and Rhys met Brent in the club change rooms and were introduced to the whole Cowboys team. Other famous people Tobi has met include Darren Lockyer and country singer, Tim McGraw.

“We’ve always said that when Tobi finished treatment, we’d go to Disneyland – we just have to wait until he can get travel insurance which is six months post treatment.”
## Education & Support

### DIARY DATES

#### NEW SOUTH WALES

<table>
<thead>
<tr>
<th>Sydney Metro</th>
<th>3 Jul</th>
<th>2-4pm</th>
<th>Penrith Blood Cancer Education &amp; Support Group (also 7 Aug; 4 Sep; 2 Oct; 6 Nov; 4 Dec)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11 Jul</td>
<td>10am-12pm</td>
<td>Liverpool Blood Cancer Education &amp; Support Group (also 8 Aug; 12 Sep; 10 Oct; 14 Nov)</td>
</tr>
<tr>
<td></td>
<td>10am-12pm</td>
<td>Concord Blood Cancer Education &amp; Support Group (also 8 Aug; 12 Sep; 10 Oct; 14 Nov; 2 Dec)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>25 Jul</td>
<td>10am-12pm</td>
<td>Alfarmon Blood Cancer Education &amp; Support Group (also 29 Aug; 26 Sep; 31 Oct; 28 Nov)</td>
</tr>
<tr>
<td></td>
<td>28 Jul</td>
<td>10am-12pm</td>
<td>St George Blood Cancer Education &amp; Support Group</td>
</tr>
<tr>
<td></td>
<td>30 Jul</td>
<td>11am-1pm</td>
<td>Westmead Blood Cancer Education &amp; Support Group (also 27 Aug; 29 Sep; 28 Nov; 17 Dec)</td>
</tr>
</tbody>
</table>

#### Central Coast

|             | 21 Jul | 1-3pm | Port Macquarie Blood Cancer Education & Support Group (also 18 Aug; 15 Sep; 20 Oct; 17 Nov; 15 Dec) |
|             | 22 Jul | 11.30am-1pm | James Blood Cancer Information & Support Group (also 19 Aug; 16 Sep; 11 Nov) |
|             | 24 Jul | 10.30am-12.30pm | Coffs Harbour Blood Cancer Education & Support Group (also 28 Aug; 25 Sep; 23 Oct; 27 Nov) |

#### Mid North Coast

|             | 7 Jul | 10am-12pm | Newcastle Blood Cancer Education & Support Group (also 5 Aug; 7 Oct; 4 Nov; 2 Dec) |
|             | 12 Aug | 11am-1pm | Muswellbrook Blood Cancer Education & Support Group (also 14 Oct) |
|             | 26 Aug | 10.30am-12pm | Port Stephens Blood Cancer Education & Support Group (also 18 Nov) |

#### Hunter

|             | 1 Jul | 10am-12pm | Newcastle Blood Cancer Education & Support Group (also 5 Aug; 7 Oct; 4 Nov; 2 Dec) |
|             | 18 Aug | 11am-1pm | Muswellbrook Blood Cancer Education & Support Group (also 14 Oct) |
|             | 7 Jul | 2-4.30pm | Armidale Blood Cancer Education & Support Group (also 4 Aug; 1 Sep; 6 Oct; 3 Nov; 1 Dec) |

#### Illawarra & Shoalhaven

|             | 1 Jul | 10am-12pm | Wollongong Blood Cancer Education & Support Group (also 5 Aug; 2 Sep; 1 Oct) |

#### Northern NSW

|             | 18 Jul | 10-11.30am | Lismore Young Mums (of children with blood cancer) Blood Cancer Education & Support Group (also 19 Sep; 21 Nov) |
|             | 11am-1pm | Tweed Heads Blood Cancer Information & Support Group (also 22 Aug; 19 Sep; 17 Oct; 21 Nov) |
|             | 27 Aug | 11am-1pm | Tumut Blood Cancer Information Support Group (also 29 Oct; 3 Dec) |
|             | 30 Aug | 10.30am-12pm | Lismore Blood Cancer Information & Support Group (also 19 Sep; 25 Oct; 6 Dec) |

#### West & Far West

|             | 1 Jul | 10am-12pm | Orange Blood Cancer Education & Support Group (also 5 Aug; 2 Sep; 7 Oct; 4 Nov; 2 Dec) |
|             | 2 Jul | 10am-12pm | Dubbo Blood Cancer Education & Support Group (also 6 Aug; 3 Sep; 8 Oct; 5 Nov; 3 Dec) |
|             | 3 Jul | 8.30-11am | Color Blood Cancer Education & Support Group (also 9 Oct) |
|             | 4 Jul | 10am-12pm | Broken Hill Blood Cancer Education & Support Group (also 10 Oct) |
|             | 9 Jul | 11am-12.30pm | Parkes Blood Cancer Education & Support Group (also 10 Sep; 12 Nov) |
|             | 10 Jul | 11am-12pm | Cowra Blood Cancer Education & Support Group (also 13 Aug; 15 Oct; 10 Dec) |
|             | 11 Jul | 11am-12.30pm | Mudgee Blood Cancer Education & Support Group (also 11 Sep) |
|             | 8 Aug | 10am-12pm | Bathurst Blood Cancer Education & Support Group (also 5 Sep; 7 Nov; 5 Dec) |

#### ACT & Southern NSW

|             | 8 Jul | 10am-12pm | Canberra Blood Cancer Information & Support Group (also 12 Aug; 9 Sep; 14 Oct; 11 Nov) |
|             | 16 Jul | 10.30am-12.30pm | Moruya Blood Cancer Education & Support Group (also 17 Sep; 19 Nov) |
|             | 31 Jul | 10am-12pm | Bega/Merimbula Blood Cancer Education & Support Group (also 27 Nov) |
|             | 20 Aug | 10.30am-12.30pm | Illawarra Bay Blood Cancer Education & Support Group (also 15 Oct) |

#### VICTORIA

<table>
<thead>
<tr>
<th>Melbourne</th>
<th>19 Jul</th>
<th>9-11am</th>
<th>Understanding Blood Cancer, Melbourne</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>23 Jul</td>
<td>10.30am-12pm</td>
<td>Brighton Blood Cancer Support Group (also 22 Oct)</td>
</tr>
<tr>
<td>Barwon South West</td>
<td>3 Jul</td>
<td>10am-12pm</td>
<td>Geelong West Blood Cancer Education Program</td>
</tr>
<tr>
<td>Mornington Peninsula</td>
<td>5 Aug</td>
<td>10.30am-12pm</td>
<td>Mornington Blood Cancer Support Group (also 2 Dec)</td>
</tr>
<tr>
<td>Gippsland</td>
<td>9 Jul</td>
<td>1.30-3pm</td>
<td>South Gippsland Blood Cancer Education Program, Leongatha</td>
</tr>
<tr>
<td></td>
<td>16 Jul</td>
<td>1.30-3pm</td>
<td>Central Gippsland Blood Cancer Education Program, Traralgon (also 20 Aug)</td>
</tr>
<tr>
<td></td>
<td>20 Aug</td>
<td>10.30am-12pm</td>
<td>Berwick Blood Cancer Education &amp; Support Group (also 19 Nov)</td>
</tr>
<tr>
<td></td>
<td>21 Aug</td>
<td>1.30-3pm</td>
<td>West Gippsland Blood Cancer Education Program, Warragul</td>
</tr>
<tr>
<td>Grampians</td>
<td>29 Jul</td>
<td>11am-1pm</td>
<td>Horsham Blood Cancer Support Group</td>
</tr>
<tr>
<td>Lodden/Mallee</td>
<td>24 Jul</td>
<td>10-11.30am</td>
<td>Echuca Blood Cancer Support Group</td>
</tr>
<tr>
<td></td>
<td>13 Aug</td>
<td>10am-12pm</td>
<td>Bendigo Education Group (also 12 Nov)</td>
</tr>
<tr>
<td></td>
<td>18 Aug</td>
<td>1.30-3.30pm</td>
<td>Mildura Blood Cancer Support Group (also 20 Oct)</td>
</tr>
<tr>
<td></td>
<td>19 Aug</td>
<td>11am-12.30pm</td>
<td>Swan Hill Blood Cancer Support Group (also 21 Oct)</td>
</tr>
</tbody>
</table>

#### NORTHERN TERRITORY

|             | 1 Jul | 10.30am-12pm | 2014 Education Conference, Winnellie |
|             | 3 Jul | 10-11.30am | Blood Cancer Support Group, Coconut Grove (also 7 Aug; 4 Sep) |

#### SOUTH AUSTRALIA

|             | 10 Jul | 10-12.30pm | Southern Support Group, Reynella |
|             | 15 Jul | 10-11.30am | Northern Support Group, Northfield |
|             | 16 Jul | 11am-12pm | Strathalbyn Support Group |
|             | 25 Jul | 10.30am-12pm | SAH Carers’ Support Group |
|             | 26 Jul | 10am-12pm | Barossa Support Group |

#### TASMANIA

| Southern Tasmania | 3 Jul | 11am-1pm | South Tasmania Blood Cancer Education Program, Hobart (also 23 Jul) |
| Northern Tasmania | 12 Aug | 10am-12.30pm | Northern Tasmania Blood Cancer & Support Group, Launceston (also 14 Oct; 2 Dec) |

#### QUEENSLAND

|             | 29 Jul | 10am | Townsville Support & Information Program |
|             | 30 Jul | 11.30am | Autologous Transplants. Guest speaker: Catherin Kirk, Dutton Park |
|             | 7 Aug | 2pm | Nuts & bolts of allogeneic transplants. Guest speaker, Dr James Morton, Dutton Park |
|             | 26 Aug | 10am | Caring for the Carer, The Role of the Carer, Dutton Park |

#### WESTERN AUSTRALIA

|             | 8 Jul | 10am-12pm | Perth Metro Education Session, North Perth |
|             | 14 Jul | 1-2.30pm | Perth Metro Blood Cancer Support Network (17 Sep; 20 Oct; 17 Nov) |
|             | 16 Aug | 8am-2.30pm | Patient Conference for people living with blood cancer, Perth |
|             | 16 Jul | 10am-12pm | Bunbury Regional Education Program (also 20 Aug; 17 Sep; 8 Oct; 19 Nov) |
|             | 17 Jul | 10.30am-12pm | Mandurah Blood Cancer Support Group (also 21 Aug; 16 Oct; 20 Nov) |
|             | 25 Jul | 1-2.30pm | Port Kennedy Blood Educational Support Group (also 22 Aug; 26 Sep; 24 Oct; 28 Nov) |

Visit [www.leukaemia.org.au](http://www.leukaemia.org.au) for our latest Education and Support Program Event Calendar. To register for an education or support event, call 1800 620 420 or email info@leukaemia.org.au.

---

**OUR VISION TO CURE AND MISSION TO CARE FOR YOU**

The Leukaemia Foundation is the peak body for blood cancer in Australia, funding research and providing free services to support people with leukaemia, lymphoma, myeloma and related blood disorders.

Our free services include emotional support, accommodation, transportation and practical assistance. We also fund research into cures and better treatments.

We receive no ongoing government funding and rely on the continuous support of individuals and corporate partners to provide our services and to fund our National Research Program.

**Disclaimer:** No person should rely on the contents of this publication without first obtaining advice from their treating specialist.

To find out more about how we can help you:

**Freecall** 1800 620 420

**Email:** info@leukaemia.org.au

**Mail:** GPO Box 9954 in your capital city

**Website:** [www.leukaemia.org.au](http://www.leukaemia.org.au)