

Headline	US doctors defeat leukemia with modified HIV		
MediaTitle	New Sarawak Tribune		
Date	13 Dec 2012	Color	Full Color
Section	World	Circulation	46,471
Page No	13	Readership	164,773
Language	English	ArticleSize	142 cm ²
Journalist	N/A	AdValue	RM 640
Frequency	Daily	PR Value	RM 1,921



US doctors defeat leukemia with modified HIV

NEW YORK: US doctors say they have saved a seven-year-old girl who was close to dying from leukemia by pioneering the use of an unlikely ally: a modified form of the HIV virus.

After fighting her disease with chemotherapy for almost two years and suffering two relapses, the young girl "faced grim prospects," doctors at Children's Hospital of Philadelphia said.

So in February this year they agreed to take her on in an experimental program that fought fire with fire.

Helped by a genetically altered HIV virus - stripped of its devastating properties that cause AIDS - doctors turned the girl's own immune cells into a superior force able to rout the "aggressive" leukemia.

Emily Whitehead was the first child and is one of only a handful of people in total to be given what's officially known as CTL019 therapy. The hospital stressed this could not yet be called "a magic bullet."

However in her case at least the success was dramatic.

First, millions of the girl's nat-

ural immune system cells were removed. Then the modified HIV virus was used to carry in a new gene that would boost the immune cells and help them spot, then attack cancer cells that had previously been able to sneak in "under the radar," the hospital said on its website.

Finally the rebooted immune cells were sent back in to do their work.

"The researchers have created a guided missile that locks in on and kills B cells, thereby attacking B-cell leukemia," the hospital said.

Pediatric oncologist Stephan Grupp, who cared for the girl, explained Tuesday that there was never any danger of AIDS during the process.

"The way we get the new gene into the T cells (immune cells) is by using a virus. This virus was developed from the HIV virus, however all of the parts of the HIV virus that can cause disease are removed," he said in an email.

"It is impossible to catch HIV or any other infection. What's left is the property of the HIV virus that allows it to put new genes into cells." - AFP