

LifeCell – Daily News Update

February 4, 2010

Key Industry News:

Publication	Reuters.com
Headline	<u>Study opens new path to fighting leukemia relapse</u>
Gist of the article	<p>In a study published in Science Translational Medicine, the scientists said they found 25 different stretches of DNA that were especially active in the leukemia cells. Each one has the potential to become a target for a new drug.</p> <p>"If we develop drugs against these molecules, we have a pretty good possibility of eliminating leukemia stem cells that cannot be killed by conventional anti-cancer drugs," lead researcher Fumihiko Ishikawa at the RIKEN Research Center for Allergy & Immunology in Yokohama, Japan, said by telephone.</p> <p>Ishikawa and colleagues compared leukemia stem cells of 61 patients with blood stem cells of normal healthy adults. Leukemia stem cells are the cancer cells that give birth to new tumor cells and help the cancer spread through the body.</p> <p>"Various anti-cancer drugs help many leukemia patients enter remission. But the most serious problem in AML (acute myeloid leukemia) is that many undergo relapse and eventually die," Ishikawa said.</p> <p>"Now we have identified leukemia stem cells that are responsible for relapse ... The very important thing for us is how to overcome relapse in AML patients."</p> <p>AML is a disease where there is rapid growth of abnormal white blood cells, which cannot fight infections. Patients are not only susceptible to infections, they also lose red blood cells, which carry oxygen through the body, so they become tired, short of breath and eventually die.</p> <p>So-called targeted anti-cancer drugs, such as Novartis' Gleevec and AstraZeneca's Iressa, are already blockbusters that have saved the lives of many cancer patients.</p>

But there are dozens of types of leukemia and doctors are finding there may also be many more different sub-types, each of which may need its own tailored treatment. Even targeted drugs eventually stop working because the tumor mutates even more.

Although most young and about half of elderly AML patients are cured, overall survival remains low because of relapse. Only about 20 percent of AML patients survive 5 years after being first diagnosed, according to the paper.

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