

PRESS RELEASE

Cellectis presents breakthrough in fight against cancer at ESGCT congress

Doctor Andrew Scharenberg announced on October 27th that Cellectis has succeeded in modifying immune system cells to attack cancerous tumors

Paris, France, October 29th, 2012 - Cellectis (Alternext: ALCLS), the genome engineering specialist, has announced successfully programming cells from the immune system (T cells) to kill cancer cells. This technological breakthrough was revealed for the first time ever on Saturday, October 27th at the congress of the ESGCT (European Society of Gene & Cell Therapy) in Versailles, outside Paris. The project is led by Dr. Andrew Scharenberg, Chief Scientific Officer of Cellectis therapeutics, a Cellectis Group subsidiary. Dr. Scharenberg is an immunology specialist at Seattle Children's Hospital in the United States and a professor of pediatrics and immunology at the University of Washington.

New hope for treating certain cancers

Cancer is characterized by the proliferation of certain abnormally-behaved cells in a person's body. The immune system, whose role is to defend the body against "foreign invaders" such as viruses and bacteria, has difficulty identifying these cancerous cells as hostile.

Cellectis's highly innovative approach involves isolating cells from the immune systems of healthy patients and genetically programming them to attack cancer cells in sick patients. The immune cells thus "armed" could be produced industrially, making it possible to treat many patients rather than just one.

Conclusive initial results

The results presented by Dr. Andrew Scharenberg at the ESGCT congress establish proof of concept for this protocol, leading to some especially promising possibilities in the treatment of certain cancers such as prostate cancer, leukemia, non-small-cell lung cancer (80% of cases) and glioblastomas.

Non-clinical proof of concept is planned for the end of 2012. The results of this step will be made known in the first half of 2013. The first human clinical trial is planned for late 2014.

According to Dr. Andrew Scharenberg, Chief Scientific Officer of Cellectis therapeutics, "This breakthrough program opens up real treatment possibilities for a great many



patients suffering from cancer. We are very proud of our results and would like to give patients hope for a cure in the short term."

André Choulika, Chief Executive Officer of Cellectis, added: "These results testify to the power and efficiency of Cellectis's genome engineering tools – meganucleases and TALENs™ – and their increasing impact on therapeutic field."

About Cellectis

Founded in France in 1999, the Cellectis Group is based on highly specific DNA engineering technologies. Its application sectors are human health, agriculture and bioenergies. Co-created by André Choulika, its Chief Executive Officer, Cellectis is today one of the world leading companies in the field of genome engineering. The Group has a workforce of 230 employees working on 5 sites worldwide: Paris & Evry in France, Gothenburg in Sweden, St Paul (Minnesota) & Cambridge (Massachusetts) in the United States. Cellectis achieved revenues of €16M in 2011 and has since its inception has signed more than 80 industrial agreements with pharmaceutical, agrochemical, and biotechnology companies. AFM, DuPont, BASF, Bayer, Total, Limagrain, and Novo Nordisk are some of the Group's clients and partners.

Since 2007, Cellectis has been listed on NYSE-Euronext Alternext market (code: ALCLS) in Paris. For more information, visit our website: www.cellectis.com

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