

**LifeCell – Daily News Update**

**July 17, 2009**

**Key Industry News:**

Publication	thaindian.com
Headline	<a href="#"><u>Stem cell therapeutic services launched in Kerala</u></a>
Gist of the article	<p>Bangalore-based healthcare company Catalyz Life Technologies Thursday announced the launch of stem cell therapeutics in Kerala.</p> <p>Set up at the Bangalore unit of the Trivandrum Technopark Incubation Centre, Catalyz aims to treat several incurable diseases advanced stem cells therapeutics in collaboration with the Florida-based International Stemcell Services (ISS).</p> <p>Addressing the media here, Catalyz chief executive Biju Jacob said hospitals across the country would be supported to set up regenerative therapy centres through the Catalyz-ISS initiative.</p> <p>“Surgeons and clinicians will be trained in the latest therapeutic technologies through programmes and workshops,” said Jacob.</p> <p>The potential application of stem cell therapies is wide and covers a large spectrum of diseases, he added.</p> <p>“We are also developing proprietary diagnostics and prognostics platforms for different infectious and chronic diseases using patented technologies for rapid and low cost diagnostics,” said Jacob.</p>

Publication	di-ve.com
Headline	<a href="#"><u>Girl seeks stem cell treatment to regain mobility</u></a>
Gist of the article	<p>A 17-year-old girl who suffered a spinal cord injury after being involved in an accident at an open-air disco in Qawra is hoping to undergo an experimental stem cell treatment through which she might regain the ability to walk.</p> <p>Vladyslava Kravchenko, a Ukrainian national who immigrated to Malta with her mother at age 9, suffered head and spinal cord injuries on September 14, 2008, after lighting equipment set up at the open-air disco collapsed. The collapse also caused slight injuries to 7 other people.</p> <p>She was just about to begin sixth form, with orientation at St Aloysius’</p>

	<p>College just a day away.</p> <p>Ms Kravchenko spent 4 months in hospital, and has been in a wheelchair since the accident. She resumed her studies as soon as she was discharged from hospital, successfully finishing her first year of sixth form this summer.</p> <p>She is now hoping to participate in a stem cell research programme at the NeuroVita clinic in Moscow. The experimental treatment would see stem cells taken from her bone marrow in a bid to repair her spinal cord.</p> <p>This treatment can only be carried out at the Moscow clinic. Ms Kravchenko would need to attend to several sessions over 2 years, and each session carries a hefty €20,000 price tag.</p> <p>Ms Kravchenko, who will turn 18 on Saturday, strongly believes that she will get back on her feet, and her relatives and friends have set up a fundraising campaign to help raise funds.</p>
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<b>Publication</b>	technologyreview.com
<b>Headline</b>	<a href="#"><u>Provoking Our Inner Stem Cells</u></a>
<b>Gist of the article</b>	<p>Fate Therapeutics, a startup based in La Jolla, CA, aims to harness the body's ability to heal itself by developing drugs that stimulate resident stem cells. Rather than developing cell transplants to replace diseased or damaged tissue, which is the focus of a great deal of stem-cell research, Fate is searching for molecules that can control the behavior of adult stem cells in different parts of the body. The two-year-old company began its first clinical trial in May of a novel molecule that could make cord-blood transplants more effective by enhancing the activity of the stem cells that create the blood and the immune system.</p> <p>Caspar the Fish: By creating a transparent zebrafish, Harvard researcher Leonard Zon could watch fluorescently labeled hematopoietic stem cells from a donor fish repopulate the bone marrow of the recipient. The transparent mutant zebrafish, dubbed Caspar, provided a means for studying the effects of FT1050, an experimental drug now in clinical trials to boost the effectiveness of cord-blood transplants.</p> <p>The human body is full of adult stem cells--small populations of tissue-specific stem cells that are capable only of developing into the cells of their resident tissue, and whose job is to help maintain and repair that tissue. While they lack the flexible fate of embryo-derived stem cells, adult stem cells come in a variety of flavors, including those capable of making liver cells and immune and blood cells, among others. Fate Therapeutics believes that, with a little pharmaceutical prompting, these cells can be nudged to repair tissue and organ systems, or even fight back against cancer.</p> <p>"[Adult stem cells] can be induced to proliferate, they can be induced to</p>

	<p>differentiate into the cell type they were destined to become, or potentially even induced to become something they weren't destined for that might be therapeutically relevant," says Paul Grayson, Fate's president and CEO.</p> <p>To better understand how to activate and command adult stem cells, Fate has focused much of its research on induced pluripotent stem (iPS) cells, adult cells that have been reprogrammed back to an embryonic state and have the same flexible developmental potential as embryonic stem cells. Rather than trying to use these iPS cells to treat disease, Fate is using them as a discovery tool to learn more about which pathways are important for activating or inhibiting stem-cell development.</p>
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<b>Publication</b>	investors.com
<b>Headline</b>	<a href="#"><u>Embryonic Stem Cells 'Obsolete'</u></a>
<b>Gist of the article</b>	<p>The former director of the National Institutes of Health, once an enthusiast for embryonic stem cells, now says their future has "dimmed." So why is the administration bailing out research into such therapies while troubled states like California have committed billions?</p> <p>Aside from creating or saving a few research jobs, the administration's decision to federally fund embryonic stem cell research is, as we've noted, a bailout of bad science. It throws money at an avenue of research that time and adult stem cell progress have passed by.</p> <p>Applauding the administration's move was Sen. Arlen Specter, D-Pa., who echoed the claims of embryonic stem cell supporters when he said the research has "the most remarkable potential of any scientific discovery ever made with respect to human health."</p> <p>Potential it had. Actual results, not so much.</p> <p>Michael Fumento, former IBD writer and now director of the Independent Journalism Project, writes in Forbes that adult stem cell research has lapped the field and that adult stem cells "have now treated scores of illnesses including many cancers, autoimmune disease, cardiovascular disease, immunodeficiency disorders, neural degenerative diseases, anemias and other blood conditions."</p> <p>He notes that while there has never been an embryonic stem cell clinical study, adult stem cells "have been used in over 2,000 human clinical trials." So why is ESCR attracting so much government money? Part of it is ideology, and part of it is money.</p> <p>"Research funding can generate tremendous income with no treatments," Fumento says, "because human and animal ES cells, and materials and techniques used to manipulate them, can all be patented. Licensing fees</p>

make them worth a fortune."

Research forever, cure never. Embryonic stem cell research has become sort of a medical bridge to nowhere.

Writing in her U.S. News & World Report column after President Obama announced his plan, Dr. Bernadine Healey, director of the National Institutes of Health under Bush 41, said that "embryonic stem cells, once thought to hold the cure for Alzheimer's, Parkinson's and diabetes, are obsolete."

Even worse, they can be dangerous. They are difficult to control, to coax into the specific type of tissue desired. Unlike adult stem cells taken from a patient's own body, ES cells require the heavy use of immunosuppressive drugs.

Recently, we wrote of how the family of an Israeli boy suffering from a lethal genetic brain disease sought a solution in the form of injections of fetal stem cells. These injections apparently triggered tumors in the boy's brain and spinal cord. Such tumors are called teratomas, or "monster tumors", can grow larger than a football and can even contain body parts such as hair, eyes and teeth.