

LifeCell – Daily News Update

August 19 , 2009

Key Industry News:

Publication	punchng.com
Headline	Magnetic stem cells offer hope for treatment of heart diseases
Gist of the article	<p>Heart attacks and other vascular injuries can be treated using regular injections of magnetised stem cells, experts have said.</p> <p>In animal trials, the cutting-edge treatment delivered the healing cells to the precise site of damage where their help was needed.</p> <p>Although the therapy has not been tested in human beings, a similar magnetic approach has been used to guide cancer therapies.</p> <p>According to a report by the BBC on Tuesday, a United States journal, Cardiovascular Intervention, reported the findings.</p> <p>The United Kingdom scientists, who carried out the tests, explained that the idea behind the targeted therapy was to get as many of the reparative stem cells as possible to the area of damage.</p> <p>To achieve this, the scientists coated the stem cells with minute magnetic particles.</p> <p>When these stem cells were injected into the blood stream it was then possible to control their movement using a magnet.</p> <p>In trials, the magnetic targeting led to a five-fold increase in cell localisation at a site of vascular injury in rats.</p> <p>These same magnetic nano-particles are already approved in the US where they are routinely used as an agent to make Magnetic Resonance Imaging scans clearer to read.</p> <p>The Senior author of the study, Dr. Mark Lythgoe, of University College London, said this meant human trials could begin within the next few years.</p> <p>He said, "It's feasible that heart attacks and other vascular injuries can eventually be treated using regular injections of magnetised stem cells.</p> <p>"The technology can be adapted to localise cells in other organs and provide</p>

	<p>a useful tool for the systemic injection of all manner of cell therapies.</p> <p>“And it’s not just limited to cells - by focusing tagged antibodies or viruses using this method, cancerous tumours could be much more specifically targeted.”</p> <p>A scientist at the British Heart Foundation, Professor Peter Weissberg, said, “This encouraging research shows that nanomagnets could be used to help therapeutic stem cells reach specific areas of the body, particularly inside blood vessels where the blood is flowing fast and at high pressure.</p> <p>“It is hoped that this strategy could be used to help these cells home-in to the sites of diseased tissue and improve the chances of repairing it.</p> <p>“We await further research to find out if, as well as increasing the chances of these cells getting to where they are needed, can actually speed up the repair process.”</p> <p>Although no hospital is currently performing stem cell transplantation, the Federal Government has set up a committee on the technology.</p> <p>The group, the National Committee on Research and Application of Stem Cell Transplantation Technology in Nigeria, has designated five hospitals as stem cell transplantation centres.</p>
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Publication	forbes.com
Headline	<u>Geron: FDA delays 1st trial of stem cell treatment</u>
Gist of the article	<p>Regulators are delaying a trial of an embryonic stem cell treatment for spinal cord injury, drug developer Geron Corp. said Tuesday.</p> <p>Geron (GERN - news - people) said the Food and Drug Administration is reviewing new data from studies of the therapy, called GRNOPC1, on animals. The company plans to start testing its product on humans this summer, but that testing will be delayed during the FDA's review. Geron said it will work with the FDA, and did not estimate how long the review will take.</p> <p>The product is derived from human embryonic stem cells, and the company says it has tested the drug in 24 separate studies involving rats and mice. The FDA cleared human testing in January, and since then, Geron said it has been studying different doses of the stem cell treatment, and testing it against other neurodegenerative diseases.</p> <p>The planned trial will involve eight to 10 patients. It plans to recruit patients who recently became paraplegics, meaning they can use their arms but are unable to walk. They will be injected with GRNOPC1 within two weeks of</p>

	their injury, and Geron will monitor the safety of the treatment and will look for improvement in sensation and movement.
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Publication	smartbrief.com
Headline	<u>Stem cell class might help treat atherosclerosis</u>
Gist of the article	U.S. researchers reported that they found a class of stem cells, called coronary vascular progenitor cells, that develop into coronary arteries and could pave the way for the treatment of atherosclerosis. Dogs with a blocked coronary artery showed improvement in blood flow and cardiac function a month after receiving an injection of the cells, the scientists found

Publication	fiercebiotech.com
Headline	<u>Cleveland boasts stem cell research hub</u>
Gist of the article	While Massachusetts and California have been gaining wide recognition for cutting-edge scientific work in the stem cell field, Cleveland has been quietly building up its own reputation in the burgeoning new industry. The Plain Dealer makes the case that the Center for Stem Cell and Regenerative Medicine has been able to leverage state funding to help launch a string of biotech start-ups.

Publication	whptv.com
Headline	<u>Diabetes Stem Cell Study</u>
Gist of the article	<p>Dr. Andrew Behnke, owner of the Cumberland Valley Endocrinology Center in Carlisle, says a study going on at his facility could be major steps in the effort prevent the progression of diabetes.</p> <p>The study that's underway at the center, uses adult stem cells in those who are in the early stages of Type 1 diabetes. The goal of the treatment is to prevent further destruction of the pancreas. A number of people have already completed the study. Participants receive three injections of either the stem cells or the placebo.</p> <p>Only a handful of medical centers are conducting the study at this time. For 29-year-old Karen Geyer who has Type 1 diabetes, it's too late to participate in the study but she says if the treatment can save people from a life long battle with diabetes, she fully supports the study.</p>