

LifeCell – Daily News Update

September 4, 2009

Key Industry News:

Publication	medindia.net
Headline	British Surgeons Use New Stem Cells Technique To Prevent Hip Replacements
Gist of the article	<p>Surgeons at Britain’s Spire Hospital in Southampton are using a novel technique that uses stem cells to repair damaged bones.</p> <p>Media reports on this procedure suggest that it may prevent thousands of people from needing to have an artificial hip fitted. Mark Venables, 39, is one patient on whom doctors at the Spire Hospital conducted one of their first operations.</p> <p>He suffers from a condition where bone in his hip died, weakening his joint and causing pain on movement. The surgeons at the hospital used his own stem cells to rejuvenate the affected bone.</p> <p>"I just want to get back to an active life," Sky News quoted Venables as saying before the operation. For the operation, the surgeons first purified stem cells from bone marrow that they had extracted from Venables' pelvis.</p> <p>The doctors then mixed them with cleaned, ground-up bone from another patient, who had had their own hip replaced. After removing the dead tissue from the ball of his hip, the doctors filled the cavity with the mixture of stem cells and donated bone. Surgeon Doug Dunlop said that the bone would have collapsed without the stem cell treatment, and that Venables would have then needed an artificial hip joint.</p> <p>"If this new procedure works, he won't need a hip replacement. It will fix his hip for life," said Dunlop. To date, six patients have been operated using the new procedure, and only one surgery has failed.</p> <p>Professor Richard Oreffo, of Southampton University, is now hoping to improve the technique further by replacing the donated bone with an artificial material containing chemicals that help the stem cells grow.</p>

Publication	news.bbc.co.uk
Headline	Safety call over stem cell trips
Gist of the article	<p>A clampdown on unproven and potentially unsafe stem cell research is being called for by an expert group. Bionet, a group of expert Chinese and European doctors, lawyers and bioethicists, says countries throughout the world must develop more effective regulation for this emerging science.</p> <p>They say desperate patients are being subjected to a huge amount of hype when they travel abroad for treatments. The only way to counter that is through proper clinical</p>

	<p>trials, they say.</p> <p>Professor Nicholas Rose, from the London School of Economics, who led the group, said Bionet's team had talked to physicians in China and Europe because China had now overtaken India as the place where pharmaceutical companies were carrying out most of their trials.</p> <p>They had provided a wealth of anecdotal evidence about their concerns that stem cell research was being moved too rapidly into clinical practice without proper study. He said: "The key is informed consent. Doctors should be able to tell the patient about the short-term and long-term prognosis and the things we don't know about the risks."</p> <p>Bionet is recommending that the safety and efficiency of stem cell treatments is investigated through state-of-the-art clinical trials before they are offered to patients. It also says doctors should be honest about the conditions under which germ cells, embryos or embryonic tissue has been collected. It also recommends that they should only be imported and used for research if they were collected under conditions which are either similar or equivalent to those in the receiving country.</p> <p>Brian MacNeill who went to China twice for stem cell treatments Nobody should be coerced by unfavourable circumstances or by being dependent on someone to donate cells or tissue for research, banking or treatment purposes, Bionet says. And there should be quality standards for stem cells used in clinical practice. These should include the bacterial and viral contamination applied during the production of the stem cells.</p> <p>China introduced new regulations in May calling for clinical trials before stem cell treatments were offered to patients. Professor Qui Renzong, vice-president of the ethics committee at the Chinese Ministry of Health, said: "In China there are about 150 institutions now providing stem cell therapy for diabetes through to spinal injuries."</p> <p>Foreign patients were paying an average of \$25,000 (£15,434) he said but since the regulations were only recently introduced there was no way of knowing how many foreigners had made trips to China for treatments.</p>
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Publication	abcnews.go.com
Headline	Osiris Stem Cell Platform Success Hinges on 2 Trials
Gist of the article	<p>Osiris Therapeutics Inc, which is developing a drug to treat a rare condition that affects bone marrow transplant patients, is poised to unveil results from a late-stage trial that could pave the way for the first approved drug in that indication and instill investor confidence in the company.</p> <p>GvHD is a potentially fatal disease in which immune cells from a transplanted bone marrow recognize the recipient's body as foreign and attack it. Osiris' drug, Prochymal, is designed to work by interacting with the immune cells in the body, reducing inflammation and assisting in tissue repair.</p> <p>In theory, it could also help patients with diseases such as diabetes and Crohn's disease. One of the company's studies is testing the drug in patients with acute GvHD, which usually manifests itself within a few days of a transplant. Organs mainly affected by the immunological attack are the gastrointestinal tract, skin and</p>

	<p>liver.</p> <p>The second trial is testing the drug in patients with GvHD who have failed to respond to steroids, which are the standard treatment. The studies, if successful, would form the basis for a marketing application with U.S. regulators.</p> <p>So far the drug has had a checkered history and Jefferies and Co analyst Eun Yang sees the GvHD trials having low chances of success given the drug's lack of efficacy in other indications.</p> <p>In June, Prochymal had failed in a mid-stage study to improve lung function in patients with chronic obstructive pulmonary disorder (COPD), a respiratory disorder that often affects smokers.</p> <p>In March, a trial of the drug in Crohn's disease was halted by the U.S. Food and Drug Administration due to design flaws.</p> <p>The company's shares have risen 22 percent over the past fortnight in anticipation of the results that are expected within days, but lost most of it on Thursday.</p> <p>"It is just jitters...everyone was expecting the data this week and are assuming that no news is bad news," Wedbush Morgan Securities analyst Duane Nash said, adding that the company had not yet received the data in hand.</p>
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Publication	news.harvard.edu
Headline	<u>Concentrating on stem cells</u>
Gist of the article	<p>Harvard College sophomore Alison Kraemer knows what it feels like to have a spinal injury.</p> <p>For six years, Kraemer has been in pain every day, the result of herniated discs suffered in a fall during dance practice. In the years since, she's not only lived with the pain, she's endured doctors who were not always sympathetic and come to understand that even with today's advanced technology, much remains unknown in treating spinal injuries.</p> <p>Kraemer would like to change all that. This summer, she is interning in the laboratory of Assistant Professor Paola Arlotta, a principal faculty member of the Harvard Stem Cell Institute (HSCI) and researcher at Massachusetts General Hospital, working on the differentiation of corticospinal motor neurons. This fall, Kraemer plans to join a small group of sophomores who will be the first to undertake a newly available concentration: human development and regenerative biology (HDRB).</p> <p>"If I could do something to help [people suffering spinal injuries], I would," Kraemer said. "There's still not much known about how to treat the spinal cord. I'd like to work on that and unfold those mysteries."</p> <p>The new concentration being offered by the Department of Stem Cell and Regenerative Biology is the latest example of the University's commitment to and pre-eminence in the promising new field of stem cell research.</p> <p>Launched two years ago, the SCRB is the University's first interschool department, with faculty from both the Faculty of Arts and Sciences and the Harvard Medical School, it has close ties to the Harvard Stem Cell Institute (HSCI) and is chaired by HSCI's co-directors Douglas Melton, the Thomas Dudley Cabot Professor of the Natural Sciences, and David Scadden, Gerald and Darlene Jordan Professor of Medicine at Harvard Medical School and Harvard-affiliated Massachusetts General</p>

	<p>Hospital.</p> <p>The institute, which marks its fifth anniversary this year, has seen years of rapid growth during which it provided a counterbalance to the Bush administration's restrictions on federal funding of stem cell research. HSCI was founded as one of several inter faculty initiatives with the goal of unifying stem cell-related research being conducted at Harvard's Schools and affiliated hospitals.</p>
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