

LifeCell – Daily News Update

September 29, 2009

Key Industry News:

Publication	dailymail.co.uk
Headline	Health news: The stem cell jab for prostate cancer and how glasses could help stroke victims
Gist of the article	<p>A new treatment for treating prostate cancer is being tested on men in the advanced stages of the disease.</p> <p>It is based on cells taken from the patient - the hope is that these will provoke the immune system into attacking and eventually killing the cancer.</p> <p>The treatment relies on dendritic cells, immune cells whose job is to spot invaders and then recruit help from T-cells to attack them.</p> <p>Unfortunately, dendritic cells are rarely around in large enough amounts to trigger a strong enough immune response. In the new therapy, larger numbers of the cells are created in a lab from the patient's blood.</p> <p>In a trial, U.S. patients will receive five injections. A day after each one, they will be given a single dose of a second drug to get the treatment working.</p>

Publication	beta.thehindu.com
Headline	International meet on 'stem cells' at Chennai on October 24
Gist of the article	<p>An international meeting on 'stem cells' would be held at Chennai on October 24 in commemoration of the fourth anniversary of Nichi-In-Centre for Regenerative Medicine (NCRM), an Indo-Japan joint venture institute.</p> <p>World renowned stem cell scientist Dr Yokio Nakamura, Director of Riken Bio-Resources Centre, Japan, would talk on 'creation of cell lines' and future development potentials of induced pluripotent stem cells, a release from NCRM said here on Monday.</p> <p>Riken Bio-Resources Centre possesses world's second largest cell line bank, it said.</p> <p>The 'Fujio cup' quiz on stem cells and regenerative medicine would be held for the fourth time this year, in which medical and biotech students from all over the country were expected to participate.</p>

	Scientists from various health institutions would present their works in the conference, it added.
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Publication	medcitynews.com
Headline	<u>Cell Targeting hopes to bring purpose to stem cell therapy</u>
Gist of the article	<p>Joseph Wagner sees most cell-therapy companies offering little more than a bag of cells. His company will give the bag a little direction.</p> <p>Cell Targeting is developing technology that can point stem cell therapies to specific areas of the body. Among the many challenges in cell therapy is direction: not enough of the stem cells are getting to the tissues that needs treatment.</p> <p>Cell Targeting's approach could cut costs: directed cell therapies mean smaller dosages, which allows for a lower price. But Wagner wants to sell companies (and investors) on the idea that Cell Targeting's approach can create new products.</p> <p>Currently a stem cell therapy can help different parts of the body. That attracts more customers, but doesn't do much when the company wants to differentiate its product and charge a different price.</p> <p>A stem cell therapy tweaked by Cell Targeting can become unique because it can be directed to different areas of the body to treat different afflictions, Wagner said.</p> <p>"We make them distinct by our delivery," Wagner said. "We have the ability to make those bags of cells into unique cell-therapy products."</p> <p>Cell Targeting's product is a peptide, a tiny piece of protein, that coats stem cells and guides them to damaged tissue. The coating peels away like paint after it gets to its target and allows the therapy to do its work.</p> <p>The technology is based off research from Case Western Reserve University researchers Arnold Caplan and James Dennis. The company's initial focus is in cardiovascular therapies.</p> <p>Cell Targeting recently landed a research grant from the state and moved into a larger facility in the city's BioEnterprise building in preparation for expanding staff and research. It has completed two proof-of-concept studies and will finish a third by year's end.</p> <p>Wagner is planning investor meetings starting late this year or early next to raise as much as \$11 million to fund manufacturing preparations, toxicology testing and interactions with the U.S. Food and Drug Administration.</p> <p>"We want to use that money to position us to be viable partner for a cell-therapy company," Wagner said. Cell Targeting won't do clinical trials for its product. Instead it would go through testing along with the cell therapy its assisting.</p> <p>"Once cell-therapy companies get done with the first version of their</p>

	products, we'll be ready to help them with their second version," Wagner said.
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Publication	news.guelphmercury.com
Headline	Woman seeking stem cell treatment
Gist of the article	<p>Elaine Stretten-Beck is convinced her hope for a better future coping with multiple sclerosis stems from her cells.</p> <p>A former Guelphite now living in Brantford, she and her Royal City family are seeking to raise \$50,000 for experimental stem cell treatment and associated expenses abroad, including an upcoming fundraising dance in Guelph. To date, they've raised several thousand dollars.</p> <p>MS is a chronic, debilitating and, in her case, progressive, autoimmune disorder in which the body's immune system attacks the central nervous system. Research is ongoing around the globe, including some funded by the Multiple Sclerosis Society of Canada, into stem cells that may repair or mitigate the damage through their unusual ability to rejuvenate and specialize.</p> <p>But Stretten-Beck said stem cell treatments, available abroad, aren't yet offered in Canada except in research trials, and she can't wait the years that it will likely take for easy access.</p> <p>"It's not available here . . . for five to 10 years. Do I have another 10 years to waste in my life? I'd rather not."</p> <p>The family is planning a Halloween dance and silent auction, complete with raffles and prizes, for 7 p.m. Oct. 30 at the Italian Canadian Club in Guelph, with tickets going for \$20 for adults and \$10 for children.</p> <p>"Hopefully, lots of people will come and attend," her mother, Anne Stretten of Guelph, said Monday. She's holding out hope the treatments will at least stabilize her daughter's condition, which has deteriorated in recent months to the point she's confined to a wheelchair.</p> <p>"She's just getting worse, so she needs to try something," the elder Stretten said.</p> <p>The Multiple Sclerosis Society of Canada is involved in some early research into the promise held by stem cell treatments, clinical program assistant vice-president Aprile Royal said. These are early days, she said, noting experimental stem cell programs are available at clinics in various countries around the world, but they vary in how they utilize stem cells and no best practice has emerged.</p>

	<p>“There’s almost as many countries as ways of doing it,” Royal said, adding her organization participated in a recent international meeting to set out scientific approaches. One goal was to establish actual research trials.</p> <p>“It’s impossible to say at this time when that’s going to get going,” Royal added.</p> <p>“There’s a lot of focus on stem cells, absolutely,” she added. “I think it’s a promising field.”</p> <p>Elaine Stretten-Beck, who was largely raised in Guelph, attended the Our Lady of Lourdes and Bishop MacDonell high schools here. On modest disability support, she moved to Brantford from Guelph two years ago with husband Kevin Beck because bungalows are cheaper there.</p> <p>“Stairs are just out of the question,” she said, explaining why she needs that type of housing.</p> <p>Three months ago, she contracted a debilitating infection, a complication of MS, and can no longer get around by using a walker. A personal support worker comes by periodically to help with laundry and house cleaning.</p> <p>While stem cell treatments are in early stages of development globally, Stretten-Beck said results to date are promising enough that she’s concluded they’re worth pursuing.</p> <p>Stretten-Beck hasn’t yet chosen a clinic, but is leaning toward one in Costa Rica, which combines stem cell transplants with rehabilitation services.</p>
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Publication	dsc.discovery.com
Headline	Stem Cells Point to Space Ills
Gist of the article	<p>Stem cells exposed to microgravity express different proteins than those grown in normal gravity, say Australian researchers.</p> <p>The finding may explain why long-term exposure to microgravity causes astronaut health issues such as loss of bone density and muscle wasting.</p> <p>The research, led by biologist Brendan Burns of the University of New South Wales in Sydney, will be presented this week at the 9th Australian Space Sciences Conference.</p> <p>Burns, along with graduate researchers Elizabeth Blaber and Helder Marcal, used a NASA rotating-wall vessel to simulate microgravity, which is experienced by astronauts in low Earth orbit, to analyse its effect on human embryonic stem cells.</p> <p>Stem cells are cells that have yet to differentiate into cells with specialized</p>

functions.

The researchers isolated and identified proteins expressed by the cells and compared these to proteins from cells grown under normal gravity conditions.

Their results showed 75 percent of the proteins from the cells exposed to microgravity were not found in those grown under normal gravity.

"A lot of work has been done on microgravity at a systemic level, such as the effects on the immune system. No one has really looked at the effect of microgravity at a cellular level and we think that is a huge gap," said Burns.

"What we've found is a range of different proteins that are potentially important for astronaut health were more or less predominant in terms of different gravity."