E-news

Nebraska Coalition for Lifesaving Cures

The Newsletter of the Nebraska Coalition for Lifesaving Cures

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News & Notes

Stem cells ride research roller coaster

Like roller coaster rides? Strap yourself in — stem cells may be your scientific ticket. A flurry of stomach-dropping up and down moments all week befell one of the brightest, new attractions in science, induced pluripotent stem cells. Such IPS cells are "induced" by genetic signals to grow from normal adult cells into unspecialized ones that look like they could be coaxed into becoming replacement tissues for transplant patients.

Full Story in *USA Today* (02-06-2011)

The iPSC-ESC Gap

Induced pluripotent stem (iPS) cells -- adult cells that have been de-differentiated into an embryonic-like state -- have "hotspots" in their genomes that are not completely reprogrammed, according to a new study in Nature. The research demonstrates that iPS cells are fundamentally different from embryonic stem (ES) cells, and will require more analysis prior to use in therapies and disease models.

Full Story in *The Scientist* (02-02-2011)

Will Iowa lawmakers ban in vitro fertilization?

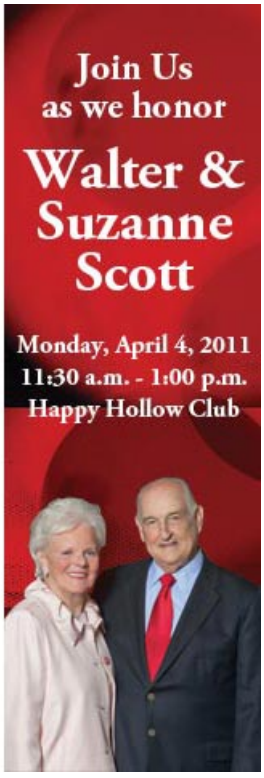
Republican state lawmakers - with the support of a new governor - have two options. They can try to reinstate a 2002 law that impeded human embryonic stem cell research. Or they can stop playing politics and drop the issue. The Des Moines Register recommends in this Editorial that they should choose the second option.

Full Story in *The Des Moines Register* (01-22-2011)

Embryonic Stem Cells Help Deliver 'Good Genes'

Researchers at Nationwide Children's Hospital report a gene therapy strategy that improves the condition of a mouse model of an inherited blood disorder, beta-thalassemia. The gene correction involves using unfertilized eggs from afflicted mice to produce a batch of embryonic stem cell lines. Some of these stem cell lines do not inherit the disease gene and can thus be used for transplantation-based treatments of the same mice.

Full Story in *Science Daily* (01-10-2011)



Stem cell trial for blindness approved

Advanced Cell Technology said Monday it had won U.S. Food and Drug Administration approval to try out human embryonic stem cells for treating macular degeneration, a common cause of vision loss. It is the second FDA approved trial for ACT's stem cell product and the third for the controversial and powerful stem cells.

ACT said it would start recruiting patients with dry age-related macular degeneration using retinal pigment epithelial, or RPE cells, which ACT makes from human embryonic stem cells. "Dry AMD is the leading cause of blindness in individuals over the age of 55," Dr. Robert Lanza, ACT's chief scientific officer, said in a statement. "As the population ages, the incidence of AMD is expected to double over the next 20 years," he added. In October, Geron Corp enrolled the first patient in the first ever approved study of human embryonic stem cells, to treat people whose spinal cords have been crushed. In November,

ACT won FDA approval for the second human trial of human embryonic stem cells to treat people with a progressive form of blindness called Stargardt's macular dystrophy.

Full Story in *The Toronto Sun* (01-03-2011)