For NU regents, no rush into stem cell research debate

By Leslie Reed | Originally Appeared in the Omaha World-Herald, Reprinted with permission

he results of last week's election pose a new risk for embryonic stem cell research at the University of Nebraska, but the risk does not appear imminent. Five of the eight members of the new board that takes office in January are on record opposing the use of such cells in medical research, but none has disclosed plans to stop it.

Opponents say the research is unethical because embryos were destroyed to provide the cells used for study. Proponents say scientists need to study embryonic stem cells as part of their search for lifesaving cures. They also note that scientists don't actually use embryos in their research. Rather, they purchase and use cells grown and replicated from an original embryonic sample.

Last week's election marked the most significant overhaul of the NU Board of Regents in more than 40 years. Since an expansion of the board to eight members in 1970, no more than two seats have changed hands in any election.

This year's three-seat turnover resulted from Regents Jim McClurg of Lincoln, Randy Ferlic of Omaha and Chuck Hassebrook of Lyons not seeking re-election.

Their replacements include Jim Pillen, 56, of Columbus, and LaVon Heidemann, 53, of Elk Creek, both endorsed by Nebraska Right to Life for their opposition to embryonic stem cell research. And both replace regents who supported the research.

The third new regent, former Omaha Mayor Hal Daub, ran without the support of Nebraska Right to Life because he did not pledge to vote to change the research policy. He said current state law and federal regulation answer the issue. Daub replaced an opponent of the research.

At the NU Medical Center, embryonic stem cell work represents a small but important part of the campus's wider research endeavor, said Jennifer Larsen, vice chancellor of research.

Four med center researchers are using embryonic stem cell lines, accounting for a total of about \$4 million in research funding over multiple years. Total research funding for the med center in 2011-12, by comparison, was about \$89 million.

Far more research at the med center involves stem cells obtained from adults, but Larsen said the embryonic stem cell lines are needed to help understand how adult cells can be reprogrammed to perform new functions within the body.

Continued on Page 4 >

NCLC Receives 2012 Stem Cell Action Award

Story on Page 3



Victoria Kohout, Executive Director of NCLC accepts the award at the World Stem cell Summit on December 8.



Breakthrough in the Understanding of Embryonic Stem Cells

November 30, 2012 | Science Daily

A significant breakthrough in the understanding of embryonic stem cells has been made by scientists from the Smurfit Institute of Genetics at Trinity College Dublin. The Trinity research group, led by Dr Adrian Bracken and funded by Science Foundation Ireland, has just published their findings in the journal, Nature Structural & Molecular Biology.

The new research describes the process whereby genes that are 'on' in embryonic stem cells are switched 'off'. This process is essential in order to convert embryonic stem cells into different cell types such as neurons, blood or heart cells and therefore represents an important breakthrough in the area of regenerative medicine.

The research encompasses both embryonic stem cell research and epigenetics. Embryonic stem cell research is focused on a particular type of cell that is capable of generating the various tissues in the body; for example, muscle, heart or brain. It is particularly relevant due to its potential for regenerating diseased tissues and organs and for the treatment of a variety of conditions including Parkinson's disease, diabetes and spinal cord injury

Epigenetics explains how cells in your body with exactly the same genes can be so different functionally. For example, a neuron and a muscle cell look and act very differently, yet contain exactly the same genes. The study of epigenetics has helped us understand that every type of cell has its own unique pattern of genes that are either switched 'on' or 'off'. Different types of cells arise therefore due to these differences.

Support our effort to protect stem cell research in Nebraska by joining our Coalition.

www.nebraskacures.com

ACT announces results from three ongoing stem cell clinical trials for macular degeneration

November 9, 2012 | Advanced Cell Technology, Inc.

Advanced-Cell Technology, Inc., a leader in the field of regenerative medicine, announced today data is being collected from patients in its clinical trials for forms of macular degeneration. The company has treated 13 patients thus far in its three ongoing trials for dry age-related macular degeneration (dry AMD) and Stargardt's Disease (SMD) using human embryonic stem cell (hESC)-derived retinal pigment epithelial cells.

Across the various clinical trial sites, with regular patient follow-up, no adverse safety issues relating to the transplanted cells have been observed. At up to 16 months following treatment, no hyperproliferation, tumorigenicity, ectopic tissue formation, or apparent rejection were observed in any of the 13 patients at any time. Detailed clinical and diagnostic laboratory assessments were performed at multiple post-transplantation evaluations.

Panel investigates unproven stem cell therapies

December 4, 2012 | CIRM Regenerative Medicine

The World Stem Cell Summit held in West Palm, Florida paid particular attention to the use of "unproven" stem cells in clinics. This is an issue that has come to prominence in recent years, as clinics internationally and in the U.S. advertise and charge for supposed stem cell treatments that have not been tested; have not been shown to be effective; and are not safe.

The panel gave these signs of what they called a stem cell scam: claims of miracle cures for diseases; single treatments or cells that can treat any type of disease; lack of objective information, evidence (such as published medical reports) that a treatment is effective; treatment by a doctor who is not trained or certified to treat the specific disease; no system exists to collect information and follow up with patients.



NCLC Receives 2012 Stem Cell Action Award

December 7, 2012

he Nebraska Coalition for Lifesaving Cures was honored by the Genetics Policy Institute on Tuesday, December 4, when it received a Stem Cell Action Award. The award, presented at the 8th Annual Stem Cell Action Awards dinner in Palm Beach, Florida recognized the stem cell community's top innovators, leaders and champions.

President of the Board of Directors, David Crouse, PhD, and NCLC Executive Director Victoria Kohout represented the board in accepting the award.

"The Nebraska Coalition for Lifesaving Cures has served as a model organization for many states with their effective public awareness and public outreach campaigns," World Stem Cell Summit founder and co-chair Bernie Siegel said. "It has moved the needle in Nebraska, building bridges between patient advocates, scientists and business. The Stem Cell Action award showcases, on a global platform, Nebraska's grassroots leadership."

Other recipients of this year's awards included "60 Minutes" for the Media Integrity Award; Susan Solomon,



Left to Right: Victoria Kohout, Executive Director, NCLC; Bernie Siegel, Founder and Co-Chair, World Stem Cell Summit; David Crouse, PhD, President, NCLC

co-founder and CEO of The New York Stem Cell Foundation, for the Leadership Award; Alliance for Regenerative Medicine for the national Advocacy Award; Sabrina Cohen, founder of the Sabrina Cohen Foundation dedicated to building a global network of scientists and clinicians in the field of Regenerative Medicine, while simultaneously funding cutting-edge research and innovative therapies that will reverse paralysis.

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Cover Story: For NU regents, no rush into stem cell research debate

Continued from Page 1

University of Miami research soon to be published in the Journal of the American Medical Association shows that donated adult stem cells can be used to reverse congestive heart failure. Work at the University of Louisville has shown that heart patients' own stem cells can be reprogrammed to repair tissue damaged by heart attack.

It does not appear that the next Board of Regents is prepared to take up the research question in the immediate future. Regents who oppose the research cite other priorities for the next term.

Meanwhile, the med center will become a site early next year for clinical trials using adult stem cells to treat stroke victims.

Another consideration for NU is that imposing stricter restrictions than required by state and federal authorities would send a negative message about NU research, Larsen said, making it harder to recruit strong scientists and graduate students.

It does not appear that the next Board of Regents is prepared to take up the research question in the immediate future. Board policy gives NU President J.B. Milliken and each of the eight regents authority to propose agenda items. Regents who oppose the research, however, cite other priorities for the next term.

Regent Bob Phares of North Platte, who voted in favor of restrictions in 2009, said that, to his knowledge, veteran board members have no plans to revive the research debate.

"It's not on my radar," he said. "Right now, we have things that are of higher priority."

Regent Howard Hawks, another who voted in favor of restrictions in 2009, said he would not try to revive the issue. He said embryonic stem cell research should be conducted according to the law.

Regent Tim Clare, who is expected to become board chairman in January, listed his priorities as improved graduation rates, the NU budget, economic development and more job and internship opportunities for students.

The board last considered the research issue after President Obama took office in 2009 and expanded the research by allowing more lines of embryonic stem cells to be authorized for use in federally funded studies. Because state law and university policy mirror the federal rules, federal changes automatically apply to Nebraska.

Clare and three other regents introduced a resolution that proposed limiting Nebraska to the smaller number of cell lines approved under President George W. Bush. But that effort fell short when the regents deadlocked in a 4-4 tie. If the Obama administration expands the research again, board action would be required to prevent such broader rules from applying in Nebraska.

Julie Schmit-Albin, director of Nebraska Right to Life, said she doesn't yet know how hard her organization will push the regents to revise its policy, unless there is a further broadening of federal research policy.

"Whatever is pursued, if it's pursued, will have to be well thought out and agreed upon by the pro-life regents — and obviously all of them, because they don't have a vote to spare," she said. "It largely depends on what the pro-life regents would want to do."

Both Pillen and Heidemann have been noncommital about whether they would push to change existing policy. They said they spent more time on the campaign trail discussing agricultural research, rural economic development and rising tuition costs than stem cell research.

"If it comes up, everybody knows where I'll be, but it's not my thought to push the agenda," said Heidemann.

Pillen said he first wanted to hear from other regents during an orientation session later this month.

"I want to use my ears for a little while and speak at an appropriate time," he said. "I'm newly elected and I'm excited to serve, but speaking before I listen just wouldn't be appropriate in my mind."



UNMC announces Richard Holland Future Scientist Award winners

Six undergraduate students from four Nebraska colleges and universities recently received the 2012 Richard Holland Future Scientist Award from the Nebraska Coalition for Lifesaving Cures



Pictured left to right are: Andrew Cannon (NWU); Rachel Coburn (UNL), Kate Weskamp (NWU), Lana Zholudeva (CU A&S), Sean West (UNO-IS&T) (not pictured: Kristine Ward (CU A&S))

Six uundergraduate students from four Nebraska colleges and universities recently received the 2012 Richard Holland Future Scientist Award from the Nebraska Coalition for Lifesaving Cures.

The students received cash prizes totaling \$2,700 at the annual INBRE (Institutional Development Award (IDeA) Networks of Biomedical Research Excellence Program) conference on Aug. 8 in Grand Island.

The awards are named in honor of Richard Holland, an Omaha philanthropist and longtime supporter of research. The students were judged in two categories representing oral and poster presentations of the research work they conducted this summer as part of the INBRE program.

The INBRE program is overseen by James Turpen, Ph.D., professor of genetics, cell biology and anatomy at the University of Nebraska Medical Center. Dr. Turpen is the principal investigator of the \$17.2 million National Institutes of Health grant that funds the program.

Established in 2001, the INBRE Scholars program was created to expose students to serious biomedical research and build a statewide biomedical research infrastructure between undergraduate and graduate institutions.

The students, referred to as INBRE scholars, enter the program upon recommendation of their college professors after they have completed their sophomore year of college.

Each undergraduate school nominates approximately three students a year for the program. Once in the program, the students are given two-year scholarships worth \$11,000. The scholarship provides students with \$2,500 during each of their next two undergraduate years and \$3,000 during each of the two summers they are in the program.

The award winners are listed below.

Oral

1st place: Lana Zholudeva – Creighton University

2nd place: Sean West – University of Nebraska at Omaha

3rd place: Kate Weskamp – Nebraska Wesleyan University

Poster

1st place: Kristine Ward - Creighton University

2nd place: Andrew Cannon - Nebraska Wesleyan University

3rd place: Rachel Coburn – University of Nebraska-Lincoln





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