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The Newsletter of the Nebraska Coalition for Lifesaving Cures Volume 9, Issue 1
Nebraska Coalition for Lifesaving Cures

Coalition to Honor Mike and Gail Yanney

The Nebraska Coalition for Lifesaving Cures will honor Mike Yanney and Gail Walling Yanney, M.D. at its Eighth Annual Tribute Luncheon scheduled for April 26th at Happy Hollow Club.

The Yanneys, both of whom serve as members of the Board of Directors of the Coalition, are ardent supporters of medical research and the University of Nebraska Medical Center.

As a graduate of UNMC and retired anesthesiologist, Gail has devoted her time serving on numerous committees and boards including the UNMC Alumni Board, Olson Center for Women's Health, Eppley Cancer Institute and the Nebraska Medical Center Board of Directors. Currently Gail serves on the A-OK Mentoring Program and Bright Futures steering committee, the Lauritzen Botanical Gardens Advisory Council and the Center for Human Nutrition Board.

Mike continues to serve as Chairman Emeritus of the Board of The Burlington Capital Group LLC as well as several other boards. He has chaired All Our Kids, Inc. Foundation, Joslyn Art Museum and the Nebraska Shakespeare Festival as well as served on the boards of Heritage Services, Opera Omaha and Yanney Heritage Park.

If you would like to attend the luncheon, make your reservation on the NCLC website at www.nebraskacures.com or contact Victoria at 402-390-2461.

Gail Walling Yanney, M.D. and Mike Yanney

Expanded Stem Cell Research Approved

Originally Published in the Omaha World-Herald, November 20, 2009

The NU Board of Regents kept open new possibilities in embryonic stem cell research today, voting 4-4 on a resolution that would have restricted the university's research involving those stem cells.

Regent Jim McClurg of Lincoln, a businessman and scientist who made his career in the pharmaceutical industry, cast the deciding vote against the resolution, preventing its passage with a tie vote.

The vote came after months of effort by anti-abortion groups to limit the research to embryonic stem cells approved under the administration of former President George W. Bush.

Their efforts predate the 2008 election, when Nebraska Right to Life and other groups supported candidates who would form a majority on the eight-member board to oppose expansion of the research. With the election of Regent Tim Clare of Lincoln, the anti-abortion groups thought they had assembled a five-vote majority who would limit the research only to the so-called Bush lines.

McClurg, 64, of Lincoln had the endorsement of Nebraska Right to Life when he was elected to the board in 2006.

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Past Tribute Luncheon Honorees:

Dorothy and Stanley M. Truhlsen, M.D.	2009
Richard D. Holland	2008
James O. Armitage, M.D.	2007
Harold and Marian Andersen	2006
Rik and Dr. Shannon Bonness	2005
Michael F. Sorrell, M.D.	2004
Charles Durham	2003

Research OK'd *Continued from Page 1*

However, McClurg said this week that he would not make a decision before hearing today from all sides. NU President J.B. Milliken addressed the regents today, recommending that they oppose any effort to impose further restrictions beyond what are in place today. He said appropriate policies are in place and further restrictions would limit the opportunity to make life-saving discoveries and would risk harming the university's reputation.

NU officials say a vote to restrict stem cell research would make it more difficult to recruit scientists and compete for federal research money. Supporters of the resolution say the university should focus on adult stem cell research and a process that involves replicating embryonic stem cells.

The regents heard passionate arguments on both sides of the issue today.

Retired physician Alan Worth, who has multiple sclerosis, urged the regents not to yield to religious authorities. "We entrust the university to prepare our young people for the future and to help discover and create that future," Worth said.

Rick Kolkman of North Platte said the resolution would stop the University of Nebraska Medical Center's momentum toward becoming a beacon medical center. He said he takes exception to people who want their religious beliefs to replace university policy. "Why are their beliefs better than mine?" asked Kolkman, who added that he is religious, too, and is against abortion.

Dr. John Safranek, a Nebraska physician, said supporters of the resolution do not want to see any one religious tradition upheld. He said the restriction would acknowledge that an embryo is an embodiment of a human being. "Each one of us has been a human being at every point of our existence," he said.

David Nabity of Omaha said research dollars on embryonic stem cells are only a small slice of the total research funding available. If the research is restricted, he said, it won't have much economic impact.

The e-mails have been flying across Nebraska as the adversaries in the stem cell battle prepared for today's critical vote.

The pro-research Nebraska Coalition for Lifesaving Cures has been running radio and newspaper advertising and prerecorded "robo" telephone calls, urging supporters to ask the regents to vote against the resolution.

The group has placed advertisements in The World-Herald every day this week. One features former Husker football All-American Rik Bonness, whose two sons have Type 1 diabetes. "The Board of Regents is being pressured ... to ban some of the most promising avenues of research," the ads say.

The Regents hear testimony before voting on the resolution

The Nebraska Coalition for Ethical Research, which opposes embryonic stem cell research, is airing radio advertising urging the regents to vote for the resolution. "We love stem cell research ...We just don't want embryos destroyed to do it," those ads say.

With Legislative Bill 606 last year, the Nebraska Legislature barred state funds and facilities from being used to destroy or clone embryos for research, but otherwise agreed to allow the stem cell research under federal guidelines.

While president, Bush restricted human embryonic stem cell research to pre-existing lines of stem cells as of August 2001. After President Barack Obama took office this year, those guidelines were changed to allow the approval of additional lines of stem cells.

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

Transplanted Stem Cells Form Proper Brain Connections

January 20, 2010 | Source: Society for Neuro Science

Transplanted neurons grown from embryonic stem cells can fully integrate into the brains of young animals, according to new research in the Jan. 20 issue of The Journal of Neuroscience. Healthy brains have stable and precise connections between cells that are necessary for normal behavior. This new finding is the first to show that stem cells can be directed not only to become specific brain cells, but to link correctly.

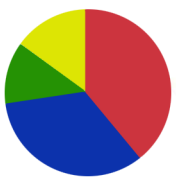
In this study, a team of neuroscientists led by James Weimann, PhD, of Stanford Medical School focused on cells that transmit information from the brain's cortex, some of which are responsible for muscle control. It is these neurons that are lost or damaged in spinal cord injuries and amyotrophic lateral sclerosis (ALS).

Cells that were precursors to cortical neurons were grown in a Petri dish until they displayed many of the same characteristics as mature neurons. The young neurons were then transplanted into the brains of newborn mice — specifically, into regions of the cortex responsible for vision, touch, and movement.

Researchers will now explore whether the same results can be achieved in adult animals and, ultimately, humans.

Americans Favor Expanding Federal Funding for ESC Research

Do you favor or oppose expanding federal funding for research using embryonic stem cells?



39% Strongly favor
34% Somewhat favor
12% Somewhat opposed
15% Strongly oppose

SOURCE: Your Congress Your Health Survey, June 2009
Charlton Reseach Company for ResearchAmerica

Stem Cells Restore Cognitive Abilities Impaired By Brain Tumor Treatment

November 10, 2009 | Source: ScienceDaily

Human embryonic stem cells could help people with learning and memory deficits after radiation treatment for brain tumors, suggests a new UC Irvine study.

Research with rats found that transplanted stem cells restored learning and memory to normal levels four months after radiotherapy. In contrast, irradiated rats that didn't receive stem cells experienced a more than 50 percent drop in cognitive function.

The study was supported by grants from the California Institute for Regenerative Medicine and the National Institutes of Health.

Stem Cells Which "Fool Immune System" May Provide Vaccination for Cancer

October 8, 2009 | Source: Health Center Today

Health Center researchers in collaboration with scientists from China have revealed the potential for human stem cells to provide a vaccination against colon cancer, reports a study published in STEM CELLS.

This discovery, led by experts in immunology, Dr. Bei Liu and Dr. Zihai Li, builds upon a century old theory that immunizing with embryonic materials may generate an anti-tumor response. However, this theory has never before been advanced beyond animal research so the discovery that human stem cells are able to immunize against colon cancer is both new and unexpected.

"This finding potentially opens up a new paradigm for cancer vaccine research," says Li. "Cancer and stem cells share many molecular and biological features. By immunizing the host with stem cells, we are able to 'fool' the immune system to believe that cancer cells are present and thus to initiate a tumor-combating immune program."

The research is the first of its kind to implicate the role of human stem cells in vaccinating against colon cancer.

Both adult and embryonic stem cell research needed

By Shane G. Smith, Ph.D., and Steven Teitelbaum, M.D.

This article first appeared in the November 2009 issue of Prairie Fire Newspaper and is reprinted with permission

Nebraska has certainly captured the attention of patients and medical researchers around the nation. With the Obama administration loosening federal strictures on science of all kinds, Nebraskans–like citizens in many other states–must now decide whether your contribution to our national pursuit of new treatments and cures will include advances made possible by embryonic stem cell research. Welcome to the forefront of the debate, and good luck.

As you build toward consensus, Nebraskans must work from a common foundation of accurate, unbiased science. There really is no other way to understand what you are choosing, or perhaps, what you are missing.

Predictably, Nebraska's debate has been poisoned by those who want to make it seem as if embryonic stem cell research is unnecessary and has no potential to provide treatments for diseases and injuries. This simply is not true.

The truth is that an overwhelming majority of scientists and medical organizations agree that adult and embryonic stem cells have their own distinct characteristics and their own therapeutic potential. Put simply, adult stem cells, derived from a limited number of tissues, particularly bone marrow, are useful in treating some blood disorders. It will be critically important to evaluate the clinical utility of other types of adult stem cells. However, the limited capacity of adult stem cells to produce a wide range of mature cells compromises their therapeutic potential. Yet embryonic stem cells have the innate capacity to become virtually any cell in the body, and may give rise to a range of healthy cells that can repair tissues damaged by disease or injury.

Perhaps this is why, after years of social dialogue, there is strong national support for embryonic stem cell research that spans political and religious boundaries. An honest view of this science tends to bring that kind of clarity.

Research opponents who selectively emphasize adult stem cell studies perpetuate an argument that has already been exposed as relying on misrepresentations of published scientific papers. We direct the careful reader to a letter that we co-authored entitled "Adult Stem Cell Treatments for Diseases?," and published in the journal Science on July 28, 2006.

The apparent origin of the notion that one kind of stem cell research obviates the need for the other is a reference list generated by David Prentice, Senior Fellow for Life Sciences at the Family Research Council, who advises opponents of embryonic stem cell research. This list is currently posted on the Web site for the group DoNoHarm.

A review of those references revealed that the DoNoHarm list included many unverified reports, including a newspaper article and anecdotal testimony given before a Congressional committee. Where the list incorporated peer-reviewed research articles, it frequently distorted the nature of the treatment under study.

For example, drug infusion trials cited as evidence for a working adult stem cell therapy for Parkinson's disease do not demonstrate any contribution of stem cell activity to the apparent improvements in Parkinson's patients. A careful reading of the cited papers indicated that stem cell activity was not even studied.

Many other references showed that the therapeutic potential of a given adult stem cell treatment remains inconclusive (e.g., heart disease), nonexistent (e.g., breast cancer) or is absurd (e.g., bone marrow transplantation as a treatment for hair loss).

In other words, the DoNoHarm list actually demonstrates the converse of that group's assertion. The truth is that adult stem cells are an important component of our medical arsenal against blood-borne diseases like leukemia and many

anemias. But there simply is no scientific basis for the claim that adult stem cell treatments are currently in general use to treat a wide range of human illnesses.

Nonetheless, these false and misleading claims continue to distort political debate on this issue.

On May 4, 2006, U.S. Senator Sam Brownback (R-Kan.) asserted: "I ask unanimous consent to have printed in the Record the listing of 69 different human illnesses being treated by adult and cord blood stem cells."

Inaccurate arguments like these mislead laypeople, minimize the needs of patients and give pseudointellectual cover to those who foist political obstacles upon embryonic stem cell researchers. They also fuel the proliferation of dangerous "stem cell treatment clinics" in other countries, which unconscionably exploit desperate patients with debilitating diseases.

The truth is that the misrepresentation of scientific evidence compounds a deceitful effort to infuse politics into our research labs so that responsible scientists cannot advance toward new treatments from across the full spectrum of stem cell biology.

Other states like Missouri, Michigan and California have soundly rejected these false and misleading claims. We trust that Nebraska will do the same.

Research into iPS Cells Discovers Problems

February 11, 2010 | Source: Compiled from Advanced Cell Technology News Release and Articles

During a study in 2007 at Kyoto University and the University of Wisconsin-Madison, a discovery was made offering promise to a way out of the bitter controversy over embryonic stem cell research; rather than using human embryos as a source of stem cells, produce them from adult stem cells.

Like cells from days-old embryos, the resulting induced pluripotent stem (iPS) cells have the ability to differentiate into any of 220 kinds of human cells, from neurons to retinal cells to pancreatic cells. Their promise was so great that when President Obama announced last March that he was lifting the ban on the use of federal money for research on human embryonic stem cells, critics argued iPS cells made such a move scientifically unjustified.

But researchers at Advanced Cell Technology have discovered a problem with iPS cells; significantly high rates of death through a mechanism called apoptosis, high rates of aging or senescence, and severely lower rates of growth. When using retinal cells and blood-vessel cells in particular, the cells lost their ability to divide. Vascular cells derived from iPS cells were capable of forming capillary-like structures, but the cells also demonstrated early cell aging.

"Before clinical application, it will be necessary to determine the cause and extent of such abnormalities, and whether they also occur in stem cells generated using different reprogramming methods" said Robert Lanza, M.D., Chief Scientific Officer at ACT, and senior author of the study. "Although there is excitement that iPS cells can serve as an embryo-free source of stem cells, it would be premature to abandon research using embryonic stem cells until we fully understand what's causing these problems."

The Hope Summit 2010 was the first stem cell conference of its kind in Missouri. **Victoria Kohout**, Executive Director of the Nebraska Coalition for Lifesaving Cures, participated on a panel discussion entitled "Stem Cells and Public Policy." The panel discussion focused on stem cell policies in Missouri and other states, as well as on the federal level and in other countries. Other topics included access to future stem cell therapies and how audience members can get involved.

The moderator was **Pam Lokken**, Board Member, Missouri Coalition for Lifesaving Cures. Other Panelists Included: **Congressman Russ Carnahan**, Missouri 3rd Congressional District; **Bernard Siegel**, Executive Director, Genetics Policy Institute; **Marie Davis**, Executive Director, Metro Saint Louis/Greater Missouri Chapter, Juvenile Diabetes Research Foundation; and **Don Reed**, Chair and Co-founder of Californians for Cures.

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