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The Newsletter of the Nebraska Coalition for Lifesaving Cures Volume 9, Issue 3
Nebraska Coalition for Lifesaving Cures

UNMC Expands Stem Cell Research

Dr. Sarvetnick to lead the Medical Center's regenerative medicine efforts

The University of Nebraska Medical Center is expanding its efforts in stem cell research by establishing the Nebraska Regenerative Medicine Project and naming Nora Sarvetnick, Ph.D. as its director.

Dr. Nora Sarvetnick

The announcement was made on Nov. 9, by UNMC Chancellor Harold M. Maurer, Ph.D. who said Dr. Sarvetnick is the right person to move UNMC forward in this exciting field of medicine.

"Dr. Sarvetnick is an outstanding researcher with expertise in stem cells and immunology," Mauer said. "She has a history of building projects and recruiting people, and that's what we will need in this new position."

The medical center has reallocated funding to allow Sarvetnick to recruit as many as four regenerative medicine scientists. Dr. Maurer said he is hopeful that Dr. Sarvetnick will be able to generate more support through private donations.

The field of regenerative medicine involves innovative medical therapies that will enable the body to repair, replace, restore and regenerate damaged or diseased cells, tissues and organs.

"The fact that Nebraska is able to embark on this project will enhance UNMC's reputation as a forward thinking world leader in medical care and research," Sarvetnick said.

Save the date

Walter and Suzanne Scott to be Honored

The Nebraska Coalition for Lifesaving Cures will honor Walter and Suzanne Scott at its ninth annual tribute luncheon honoring individuals who support medical research in Nebraska. The luncheon will be held on April 4, 2011 at Happy Hollow Club, 1701 South 105th Street, Omaha. Please mark this date on your calendar. We look forward to seeing you there.

UNMC Chancellor Chosen to Help Reinvent Primary Health Care

UNMC Chancellor Harold Maurer, Ph.D. has been chosen to serve with 14 other founding members of a landmark group to address medical workforce shortages expected to swell under federal health care reform. The National Health Care Workforce Commission will answer to Congress, operating under the Government Accountability Office.

Their task will be to identify real-world means in order to reinvent primary health care.

Vetted four times and endorsed by both Nebraska's Democratic and Republican senators, Maurer will be one of five appointees serving the maximum three-year term.

In his endorsement, Sen. Mike Johanns, who opposed Democrat-led health care reform, praised Maurer for overcoming barriers at all levels of government, building diverse coalitions to resolve problems.

Innovative approaches will be necessary to take care of the bulk of the population, Maurer said. "We need new models of primary care."

Most Americans Back Embryonic Stem Cell Research

October 7, 2010 | HealthDay News

Americans overwhelmingly support embryonic stem cell research, and that backing stretches across a broad range of demographic groups, including Republicans, Catholics and born-again Christians, according to a new Harris Interactive/ Health Day poll.

Almost three-quarters (72%) of the adults surveyed believe that scientists should be allowed to use embryonic stem cells left over from in vitro fertilization procedures to search for potential treatments or ways to prevent diseases such as Parkinson's disease, Alzheimer's, diabetes and other conditions. Only 12% oppose using stem cells for biomedical research, numbers that mirror those from a similar poll conducted in 2005.

"There is now overwhelming public support for using embryonic stem cells in biomedical research," said Humphrey Taylor, chairman of the Harris Poll, a service of Harris Interactive. "Even among Catholics and born-again Christians, relatively few people believe that stem cell research should be forbidden because it is unethical or immoral."

Among the latest poll's results:

- Seventy-three percent (versus 72% in 2005) believe that stem cell research should be allowed "as long as the parents of the embryo give their permission, and the embryo would otherwise be destroyed."
- Fifty-eight percent of Republicans think stem cell research is acceptable (versus 24% opposed), as do 69% of Catholics and 58% of born-again Christians. 16% percent of Catholics and 22% of born-again Christians oppose it.

First Clinical Trial Using Embryonic Stem Cells to Treat Macular Degeneration

November 22, 2010

The US Food and Drug Administration has cleared an application to immediately initiate a Phase I/II multicenter clinical trial using retinal cells derived from human embryonic stem cells to treat patients with Stargardt's Macular Dystrophy, one of the most common forms of juvenile macular degeneration in the world. The decision removes the clinical hold that the FDA had placed on the trial.

Stargardt's Macular Dystrophy causes progressive vision loss, usually starting in children between 10 to 20 years of age. Eventually, blindness results from photoreceptor loss associated with degeneration in the pigmented layer of the retina, called the retinal pigment epithelium. "There is currently no treatment for Stargardt's disease," said Dr. Robert Lanza, Advanced Cell Technology's (ACT) Chief Scientific Officer. "Using stem cells, we can generate a virtually unlimited supply of healthy RPE cells, which are the first cells to die off in SMD and other forms of macular degeneration."

Raymond Lund, Ph.D., a scientific collaborator with ACT, and considered one of the world's foremost experts in retinal cell physiology and vision restoration, commented, "The study results of ACT's RPE cells implanted in the various animal models of macular degeneration was phenomenal. If ACT observes even a fraction of that benefit in humans, it will be nothing short of a home run."

Clinical Trial of Human Embryonic Stem Cell-Based Therapy

October 11, 2010

Doctors in the U.S. have begun treating the first patient in Geron Corporation's clinical trial of human embryonic stem cells. The patient, who was not identified, was enrolled at Shepherd Center, a 132-bed spinal cord and brain injury rehabilitation hospital and clinical research center in Atlanta, GA. Shepherd Center was one of seven locations in the United States that may enroll patients in the clinical trial.

Geron's stem cells come from human embryos left over from fertility treatments. They have been manipulated so that they have become precursors to certain types of nerve cells.

"When we started working with human embryonic stem cells in 1999, many predicted that it would be a number of decades before a cell therapy would be approved for human clinical trials," Geron President and CEO Dr. Thomas Okarma said in a statement.

"We are pleased to have our patients participating in this exciting research," said Donald Peck Leslie, Ph.D., medical director, Shepherd Center. "Our medical staff will evaluate the patients' progress as part of this study. We look forward to participating in clinical trials that may help people with spinal cord injury."

ALS Clinical Trial Progresses

October 18, 2010

Neuralstem is moving forward with its Phase I human clinical trial in the treatment of ALS (Amyotrophic Lateral Sclerosis, or Lou Gehrig's Disease) patients at Emory University in Atlanta, GA. The company announced that, after reviewing the safety data from the first six non-ambulatory patients, the trial's Safety Monitoring Board has unanimously approved moving to the next group of ALS patients, all of whom will be ambulatory.

"We are pleased with the progress of the trial to date, and look forward to moving directly into more recently-diagnosed patients," said Dr. Eva Feldman, Ph.D., Principal Investigator of the trial and a consultant to Neuralstem.

"We are encouraged by the Board's approval to advance the trial to patients who have an earlier stage of the disease," said Neuralstem's CEO and president, Richard Garr. "While the primary endpoint of the trial is safety, we also hope to see some secondary endpoints showing efficacy. We are grateful to the patients, and their families, for participating in this trial."

The first six patients treated in the trial were non-ambulatory. Of these, the first three received five injections each, unilaterally, in the lumbar region of the spinal cord. The next three received ten injections each, bilaterally in the lumbar region. All of the remaining patients in the trial will be ambulatory, and therefore represent earlier stages of disease progression.

Stem Cell Coalition Launches

November 11, 2010

The Genetics Policy Institute (GPI) has launched a new advocacy coalition of 30 organizations, of which the Nebraska Coalition for Lifesaving Cures is one, to foster public awareness and advance the cause of embryonic stem cell research in the United States.

The Stem Cell Action campaign will unify stem cell advocates in 50 states in a campaign directed at educating their fellow citizens on the promise of embryonic stem cell research to alleviate human suffering from chronic medical conditions.

"In light of the recent and ongoing court challenge in the case of Sherley v. Sebelius and the election of politicians vowing to eliminate funding or ban embryonic stem cell research, the large grassroots majority of Americans who support stem cells can no longer remain silent," said Bernard Siegel, executive director of GPI.

"It is high time for this issue to be treated as a national priority. We are well aware that foes of stem cell research will do absolutely everything in their power in court and through legislation to cripple stem cell research. The Stem Cell Action coalition will challenge them at every level. We will not let them crush hope," Siegel said.

As its first action, the group has launched a public awareness web site at www.stemcellaction.org. The site calls upon the public to contact public officials to support legislation to protect and fund federal research.

SUPPORT MEDICAL RESEARCH

Please send your tax deductible contribution today.

Nebraska Coalition for Lifesaving Cures is a not-for-profit state-wide organization. Contributions to Nebraska Coalition for Lifesaving Cures are tax deductible.

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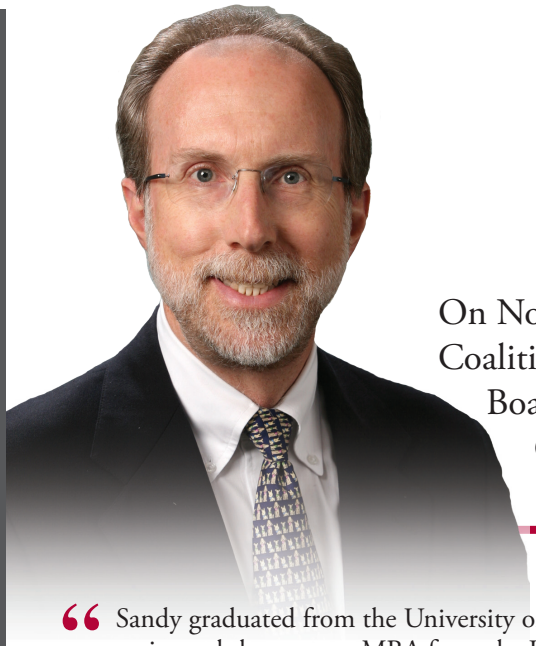

A Salute to Sanford Goodman

On November 4, 2010, the Board of Directors of the Nebraska Coalition for Lifesaving Cures held a surprise dinner honoring Board President Sanford Goodman at Happy Hollow Club in Omaha. Some comments from Sandy's friends are below.

"Sandy graduated from the University of Virginia in economics and then got an MBA from the University of Chicago in Econometrics. That was just a starter. His knowledge and logic, his speaking ability and talking sense are his and our enormous assets. On the side, he is CEO and Chairman of a successful animal food company in Wisconsin. I could go on and on because Sandy Goodman is a great person for Omaha and Nebraska."

-Richard Holland, Chairman of the Board

"We came upon Sandy at a time in his life when he was looking for a cause and passionately took on the debatable subject of Embryonic Stem Cell Research. Sandy has been the scholarly spokesperson for NFR (NCLC). He has spirited the cause with a passion only he can bring to the organization."

-Carol Russell, Board of Directors, NCLC

"Never be content. There is always more work to do, and you can always do better. That doesn't mean that you've never done well, that you shouldn't be happy in your life and proud of your accomplishments, but it does mean that you're never entitled to stop. This was something he told me in high school, and it pushed me through college, and it's still pushing me now, harder than ever.

As far as I can tell, my dad has never been content. He was one of the founding committee members of Nebraskans for Research, now called Nebraska Coalition for Lifesaving Cures. He's not a doctor; he's the CEO of a pet food company, but he spends all his time reading about stem cell issues: the science, the ethics, the politics. He knows so much, it's really incredible. I'm so proud of him."

-Jillian Goodman, Sandy's daughter

Discovery shows promise to restore lost vision

September 8, 2010

Adult stem cells within the retina may be chemically induced to regenerate photoreceptors and restore vision in people with conditions such as age-related macular degeneration (AMD) and retinitis pigmentosa (RP), a research study at UNMC shows. The research, which was done on mice and rats, is reported in the Aug. 26 edition of PLoS One.

Iqbal Ahmad, Ph.D.

The research represents the first indication that the retina can be repaired from within by its own cells. It would be a significant departure from transplantation of stem cells, which is now being studied for restoring lost vision and brings with it a variety of concerns such as immune rejection and the source of cells.

"It's a tantalizing stem cell approach to correct vision loss ... to harness existing stem cells and coax them into repairing the retina," said Iqbal Ahmad, Ph.D., professor of ophthalmology and visual sciences for UNMC and the lead investigator on the study. "Before, stem cell transplantation was regarded to be the only practical way to restore vision. This is a radically different approach, and best of all, it is relatively safe and free from controversy."

Thanks to the Nebraska Coalition for their support of the Richard Holland Future Scientist Awards

By James B. Turpen, Ph.D., Professor and Vice-Chairman, Principle Investigator, Nebraska INBRE Program
University of Nebraska Medical Center

I would like to take this opportunity to sincerely thank the Nebraska Coalition for Life Saving Cures for their initiation and continued support of the Richard Holland Future Scientist Awards. These awards are presented to INBRE Scholars and are based on their achievements in carrying out research projects and presenting their results to their mentors and peers at our annual meeting. This recognition is really making a difference in the lives of our future scientists.

James Turpin, Ph.D.

The Nebraska INBRE Program is supported by the National Institutes of Health-National Center for Research Resources and is currently entering its 10th year of funding. Two of the major goals of the program are to enhance the research capacity for the state and to develop a pipeline of students who will enter biomedical research and health professions careers. The INBRE Scholars Program is one key element to developing this pipeline.

The program involves eight undergraduate campuses in Nebraska. On these campuses INBRE has provided funding to support faculty research that is appropriate for small colleges and universities, research that is appropriate for the involvement of undergraduate students. To accomplish this goal, we have provided funds for the development of research laboratories on these campuses through the purchase of the latest technology and essential pieces of high end equipment, funds to support necessary supplies and funds to support faculty salaries and travel expenses.

In turn, the participating faculties have developed research programs that involve undergraduate students and increased the visibility and importance of biomedical research throughout the State. The INBRE Scholars program is a two year program that provides Scholars with the necessary resources and opportunities to carry out in depth research projects in these laboratories. We provide stipend support during the summer and academic years as well a summer housing allowances and opportunities for travel to regional, national and international meetings. Scholars conduct full time research during each summer in the program and part time research during the school year. The basic premise is that when it is time for these Scholars to make career decisions they will have had significant experience in a research laboratory and be better able to evaluate their options.

It gives me great pleasure to share some of our success with you. Over the 10 years of the program we have had 210 INBRE Scholars. At this time, 136 Scholars have graduated and there are currently 49 active Scholars. Of the graduates, 79% are pursuing advanced degrees in health related areas with 44% pursuing advanced degrees in biomedical research and 35% pursuing professional degrees in the health professions. Another 15% have entered the scientific workforce. Of those pursuing advanced research degrees, fully 75% of those Scholars are attending graduate schools here in Nebraska, either at UNMC, UNL or Creighton.

Students who have left Nebraska have matriculated at such notable universities as Harvard, MIT, University of Colorado and UCLA to name just a few. One of our Scholars recently declined an offer from John Hopkins. Three of our Scholars have completed the PhD and are pursuing postdoctoral studies at the NIH, Ohio State University and UNMC. Four of our Scholars have received Goldwater Scholarships which are nationally competitive awards given to students with a demonstrated aptitude and commitment to biomedical research careers. Twenty three of our Scholars have won national or international awards for their research and several Scholars and faculty have published research papers in the top scientific journals. At the annual meeting of the Nebraska Academy of Sciences, over 60% of the research papers in the area of biomedical science are now presented by INBRE Faculty and Students. Nebraska is rich in talented young people and for me it is a privilege to be able to be involved with these students.

Your support of these students is having a tremendous impact on both the students and our State. As you well know, our students represent our future and biomedical research is taking on increasing importance. Recognition and advocacy of this concept by a grass roots organization such as our Coalition is highly important in an age when science literacy and understanding is essential but at a low in this State and our country. Moreover, showing our best and brightest students that the community in Nebraska recognizes and rewards their achievements will have a long term impact. Such recognition will provide them with the self confidence and encouragement to pursue challenging and difficult careers in biomedical research and will show them that their efforts are genuinely appreciated.

Again, I want to thank you on behalf of the INBRE Scholars and congratulate you for your vision and involvement in supporting research in our State.

findings

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