

This August issue has the latest from Blueprint Nebraska, legislative news and bioscience breakthroughs today.

bionebraska
life sciences association



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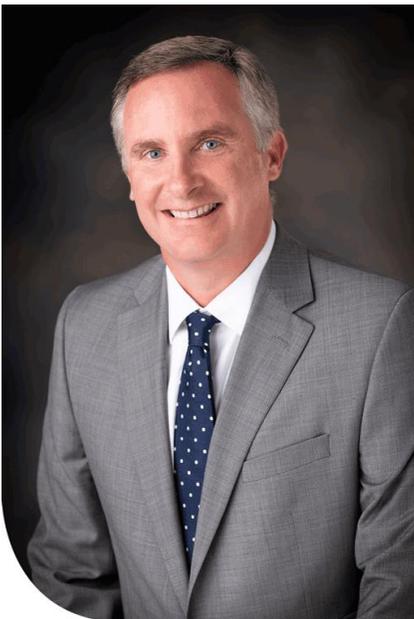
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August 2019 | Member Newsletter

Phil Kozera

Letter from the Executive Director



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Fall Begins with Optimism and Uncertainties

As students report back to school, it always reminds me how fortunate we are to have quality primary and secondary education in Nebraska. Our public and private school systems provide a strong foundation and promise for our future workforce. A key ingredient in this process is industry investment and collaboration in the education system.

Since our last newsletter, Blueprint Nebraska released their strategic plan for economic development. I had the good fortune to participate in the planning process along with over 300 Nebraskans of diverse industries and backgrounds. I congratulate the state on facilitating such a grand initiative and share a few insights into the report in our monthly highlight.

On the legislative front, we are monitoring several items. The announcement by the Environmental Protection Agency of 31 small-refinery waivers to the Renewable Fuel Standard is preposterous and adds more burdens and stress to biofuel producers and U.S. farmers. The Renewable Fuel Association estimates this step will cost farmers and the ethanol industry billions in destruction of demand for corn

along with lower commodity prices and reduced markets for ethanol sales lost to the industry. We appreciate Sen. Deb Fischer's leadership and introduction of the RFS Integrity Act.

Also, this month Health and Human Services Secretary Alex Azar announced preliminary plans to allow Americans to purchase low-cost drugs from Canada. State governments will be responsible for planning how to safely import drugs and submitting plans for federal approval. We will continue to monitor this issue but have concerns about the safety and costs associated with the government programs.

I had the good fortune to join Gov. Pete Ricketts and other Nebraskans on a trip to Chicago. We were there to engage the business and international community and discuss what makes our state a great home for industry. My compliments to Gov. Ricketts and the Department of Economic Development team for the well-run engagement opportunity.

Please mark your calendars for our next Bio & Beers scheduled for September 12 from 5 to 7:30 pm at Lazlo's in the Lincoln Haymarket. We are very pleased to have Matt Andrews, the new director of Nebraska EPSCoR, visit with us. If you're attending, please email pkozera@bionebraska.org to RSVP.

Best Regards,



Phil Kozera

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Upcoming Events



Bio & Beers

September 12
Lazlo's in the Haymarket
Lincoln, NE



Bioscience Month Kickoff

October 2
Omaha, NE



Celebrating Women in STEM

October 16
Omaha, NE

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Spotlight on the Blueprint - First, Focus on Our People

Blueprint Nebraska last month published its vision of our state's possible future. Business, industry and civic leaders, with the help of over 300 sector experts and 2,000 participants, have identified over 60 initiatives.

More importantly, the report sets high goals to rise above the middle of the pack in many areas. And it highlights key competitive challenges. Read the report and you will see it is championing ideas that have been Bio Nebraska targets. See the entire report [here](#). Below are excerpts of interest. In future newsletters, we will drill down into specifics relevant to Bio Nebraskans.

On innovation:

“In recent years, Nebraska has not kept pace with peer states on metrics that assess how well we are fostering innovation. Innovation requires technological know-how and emboldened entrepreneurs. A strong labor market with science, technology, engineering and math (STEM) expertise is often a leading indicator of future success. In 2017, the share of STEM graduates in Nebraska’s universities was low – ranking the state #36. Nebraska ranked #35 in new entrepreneurs.

“Furthermore, Nebraska’s venture capital funding remains low compared to the rest of the nation. Ranking #29 for venture capital deployed as a percent of GDP, Nebraska has one of the lowest startup densities in the nation. To remain a vibrant place for business, the state must create an environment that better enables entrepreneurs and their companies to succeed.”

On attracting and retaining talent:

“Another challenge is Nebraska’s difficulty retaining and attracting young talent. Ranked #39 among all states, Nebraska recorded one of the lowest growth rates (0.5%) for the population 25-29 years old from 2013 through 2018. Nebraska is losing people in the push for talent to other states.

“We believe we have the assets and strengths to do better at retaining and attracting talent. ... But our talent retention and attraction challenges mean we must up our game – in housing; arts, entertainment, and recreation; education and job creation; physical and digital connectivity inside Nebraska and out; and cost of living.”

On strategy

Blueprint Nebraska translated its vision into five coherent aspirations:

1. Retain our workforce talent and prepare our workers for today’s and tomorrow’s jobs by leading peer states in overall job growth.
2. Provide high quality of life that makes Nebraska attractive to a qualified workforce by leading peer states in the quality-of-life ranking.
3. Attract new residents to the state by leading peer states in building the population of 18-34-year-olds.
4. Enable the creation of high-paying jobs for Nebraskans in high-growth sectors through productivity improvements by leading peer states in net, or cost-of-living-adjusted, median income growth.
5. Accelerate the adoption of technology across industries and unlock innovation that creates growth by leading peer states in research and development (R&D) investment.

On workforce

“We propose scaling public-private partnerships that create more internships and apprenticeships per capita and customized workforce solutions than any state in the Midwest to meet the needs of expanding and relocating companies. ...

“This initiative will require increasing collaboration between business and education and building upon the work of our chambers of commerce, educational institutions and state agencies to develop public-private workforce partnerships. ...

“Because we have succeeded in quantity of jobs, we’ve earned the right to focus more on the quality of our jobs and our ability to prepare workers for and match them with those jobs. Nebraska has a small proportion of high-wage jobs compared with other states and pays lower wages for comparable jobs than competitor states do, even adjusted for cost of living.

“Underutilization of Nebraskans in the labor market has resulted in an estimated annual loss of \$11 billion in wages and \$824 million in associated tax revenue. Many people are unaware of career pathways and the evolving nature of Nebraska’s labor market.”

On target industries

Nebraska's future depends on the continued success of industry sectors. To reignite the state's growth engine, we propose four high-priority initiatives:

1. Diversify, expand, and improve the productivity of Nebraska's agri-business cluster (e.g., ag-tech, food manufacturing, and machinery industries) to increase demand for production and to create global leadership in value-added, 21st-century agriculture.
2. Build a pipeline of founders in tech sectors linked to Nebraska's core industries – med-tech, ed-tech, design-tech, fin-tech and insure-tech, ag-tech, and transportation and logistics technologies – to create the Midwest's leading tech cluster of R&D and innovation.
3. Create a multi-partner manufacturing innovation center of excellence, focused on Industry 4.0/automation to make Nebraska the Midwest leader in next-generation manufacturing.
4. Develop fin-tech, banking, and insure-tech partnerships to strengthen and diversify the financial services cluster, making Nebraska the Midwest leader in financial innovation.

How Bio Nebraska sees it

We applaud the hard work and organization that has gone into this roadmap for our future. Many things that are vital to Bio Nebraska members also are important to our fellow citizens in other fields. These collective needs, and cooperative action, will be a unifying force as our economy and our people become increasingly more diverse in the future. Key to success is leveraging the strengths and talents that our state offers, taking risks and collaborating for success. From here on, it's all about investing in execution.



State News

[Chamber Fall Forums Tout Blueprint Nebraska](#)

More than 150 Nebraskans have received a first-hand briefing on the Nebraska Blueprint, and more will hear about it in [Nebraska Chamber and Blueprint Nebraska's 30-community tour](#) through October.

[State Firms Make Inc. 5000 List](#)

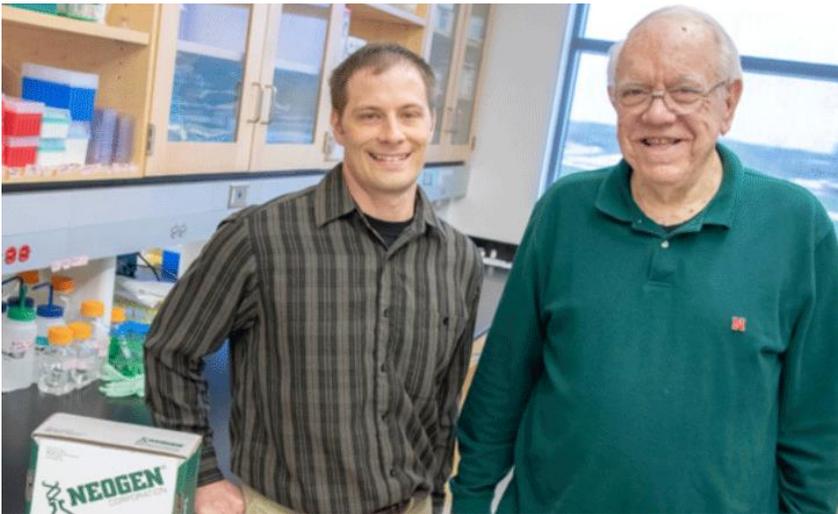
Seven companies from Lincoln, one more than 2018, and 27 from Nebraska, three more than last year, made the Inc. 5000 list of the country's fastest-growing companies.

[UNO Plans A Master's Degree in Big Data](#)

In field where experts are in high demand, a master's program in data science at UNO is being proposed to the NU Board of Regents. Big data is a special subject emerging from massive amounts of information and statistics.

[Nebraska Ethanol Board Comments on Refinery Biofuel Waivers](#)

The EPA granted 31 small refinery biofuel waivers for 2018. This follows the 54 waivers granted in 2016 and 2017. The new waivers bring the total of lost business to an estimated 4 billion gallons. "Over the past two years, the EPA has granted hardship waivers to refineries owned by companies like Exxon Mobil and Chevron," said Roger Berry, Nebraska Ethanol Board administrator. "Continued handouts to the oil industry come when heartland farmers are really struggling due to depressed commodity prices, flooding and trade wars."



Joe Baumert, director of the Food Allergy Research and Resource Program, and Steve Taylor (right), the program's founder, display a test kit developed with Neogen.

Nebraska Food Allergen Program A Success Story in Collaboration

When Steve Taylor founded the Food Allergy Research and Resource Program (FARRP) 25 years ago – with the support of seven companies – he did not anticipate its growth. “We started FARRP just as food allergy awareness started to explode,” said Taylor, UNL professor emeritus. Many companies saw value in putting effort into an inventive consortium. FARRP today involves over 100 food processors, supporting 25 staff members and several graduate students.

Tax Reform May Reduce Sales Tax Exemptions

The Legislature's Revenue Committee continued to search for a tax reform plan that would deliver property tax relief. The committee is seeking to close sales tax exemptions rather than increase the sales tax rate. Other ideas include eliminating some property tax exemptions, a local sales tax option for schools and privatizing some public services.



Hannah Esch, Unadilla, started a family business in branded beef, selling directly to consumers. She uses social media to tell their story.

Can A New Prairie Generation Save Rural America?

Young farm kids are showing a deep commitment to their region, coming home as agricultural entrepreneurs, and injecting a much-needed dynamism. One example is Hannah Esch. Her new company, Oak Barn Beef, sold out of meat four times and brought in \$52,000 in sales. Next year she expects to double sales. That will be a milestone. It will also be when she finishes her last year of college.

Celerion Celebrates 50th Years of Clinical Trials

Celerion celebrated the 50th anniversary of its first clinical trial, conducted in 1969 in Lincoln. Originally called Harris Laboratories, the firm was a pioneer in independent clinical research testing.

OWH Opinion: High-Tech Ag Opening Up Impressive New Benefits

The Midlands is well positioned to benefit from progress in ag-tech. Technology-enabled advances in field monitoring, data analysis and resource use offer important long-term opportunities for agricultural producers. Universities and private-sector companies in Nebraska and Iowa are providing major support for the research. The segment is rapidly attracting venture capital.



An artist's rendition of the Dr. Edwin G. & Dorothy Balbach Davis Global Center.

Davis Global Center Opening in Several Months

The opening of the Dr. Edwin G. & Dorothy Balbach Davis Global Center - headquarters for UNMC's iEXCEL - will open in mid-fall. iEXCEL healthcare education uses high-tech simulation and visualization technologies. The facility also will house the Global Center for Health Security, a world leader in training for responses to infectious diseases and global bio-preparedness.

UNeTech Lands \$750,000 Matching Federal Grant

UNeTech's Omaha Medical Technology Pipeline - a joint effort by UNMC, UNO, Nebraska Business Development Center, Metropolitan Community College and Omaha Chamber - will receive a \$750,000 matching grant from the Department of Commerce to develop medical devices.



Susan M. Fritz was installed as interim NU president.

Fritz Takes Helm of NU

NU celebrated the installation of Susan M. Fritz as interim president. Fritz, a 30-year veteran of the university, will lead NU until a national search is complete and her successor is in place.

Innovation Week Coming in October

UNeMed will host its annual Innovation Week during the week of October 14. Innovation Week is a popular series of events promoting innovation and research at UNMC and UNO.



From left, UNMC Chancellor Jeffrey P. Gold, Ken Zoucha, UNMC addiction division director, Gov. Pete Ricketts and Nebraska Attorney General Doug Peterson at press conference.

New Addiction Fellowship Added at UNMC

State and UNMC leaders announced Nebraska's first addiction medicine fellowship program to address a shortage of these specialists. The 12-month fellowship enables physicians to gain expertise in treating substance disorders.



Ward Summit panel discussion was moderated by Terry Buettner (left) and comprised Emily Shafto, Becca Kern, Nick Ward and Ray Ward.

Ward Labs Holds Fall Summit

Producers got the latest on agronomic and feed testing at the Ward Summit. Amelia Breinig, assistant director for the Nebraska Department of Agriculture, provided updates on ag issues related to herbicides, flood issues, hemp production and international trade.

Teachers Receive STEM Leadership Training At UNL

Rural school teachers met in Lincoln for the [NebraskaSTEM project](#). The NSF-funded program targets high-quality STEM education for K-6 teachers in high-need areas.

UNMC, UNO Working on COPD for Vets

The Department of Veterans Affairs is funding UNMC and UNO investigators via a \$200,000 grant for a two-year study on optimal breathing methods and exercise for veterans with COPD.



Sorghum, the third largest U.S. cereal crop, is an emerging star in the biofuels industry.

Thrifty Sorghum Attracts High-Tech Research

To help optimize sorghum for biofuels, UNL researchers led by plant geneticist James Schnable received a \$2.7 million, three-year Department of Energy grant to characterize sorghum gene functions. The project unites artificial intelligence and plant science.



UNO's Wellness Center is a state leader in all aspects of personal wellness.

Governor's Award Goes to UNO

UNO's commitment to workplace well-being was recognized with a 2019 Governor's Wellness Award. Ricketts said: "I applaud these employers for implementing innovative and effective worksite wellness programs. Their efforts help grow a healthier population in Nebraska."



J&J Takes Hit in Oklahoma Opioid Case

Johnson & Johnson must pay \$572 million for contributing to an opioid-addiction crisis in Oklahoma, a judge ruled. The company said it would appeal. [Shares of major pharma stocks rose](#) following a smaller-than-expected fine.

Elanco To Become No.2 In Animal Health With \$7.6 Billion Bayer Deal

Elanco Animal Health agreed to buy Bayer's veterinary drugs unit in a cash and stock deal valued at \$7.6 billion, creating the second-largest maker of medicines for pets and livestock. The deal is the latest in the fast-growing animal health market.

FDA Approves Genentech's Personalized Cancer Drug

The FDA approved Genentech's Rozlytrek for the treatment of adults with ROS1-positive, metastatic non-small cell lung cancer. The agency also accelerated approval for treatment of solid tumors with neurotrophic tyrosine receptor kinase (NTRK) gene fusion.

U.S. to Block Warning Labels on Glyphosate

The EPA told herbicide makers to remove cancer warnings from containers of glyphosate, the most widely used herbicide in the world. In July 2017, California added glyphosate to its list of chemicals known to cause cancer, birth defects or other reproductive harm. A UN agency had said glyphosate is "probably carcinogenic to humans." The EPA disagreed after running its own safety assessment.

Two New Ebola Treatments Prove Effective in Congo

In a development that may transform the fight against Ebola, two experimental treatments are working so well that they will now be offered to all patients in the Democratic Republic of Congo, scientists said. The therapies saved roughly 90 percent of the patients who were newly infected, a turning point in the decades-long fight against the virus.

Grassley Promotes Surprise Inspections of Foreign Drug Plants

Sen. Chuck Grassley is all for importing drugs to drive down prices. He just wants the Trump administration to stop warning foreign manufacturing plants that FDA inspectors are on their way – particularly in India and China. The Iowa Republican said surprise inspections were needed.



High-omega3 canola oil would replace fish meal used in aquaculture feeds.

Cargill Gets Green Light for Omega-3 Canola

Cargill has received approval to grow biotech, omega-3 producing canola in the U.S., providing the next step in ongoing work to commercialize an alternative ingredient for use in aquaculture feeds.

Synthetic Biology Goes to Nature...and Beyond

Many of the products we use every day – plastics, cosmetics, clothing, fertilizers and even aspirin – include ingredients from petrochemicals. Today, companies are turning to synthetic biology for innovative replacement of these feedstocks.

Pfizer Invests in NGOs Tackling Infectious Diseases and Antimicrobial Resistance

The Pfizer Foundation announced 20 grants to help NGOs address infectious diseases in some of the world's most vulnerable communities. Recipients will each receive \$100,000. Globally, infectious diseases are responsible for an estimated 8.4 million deaths annually.

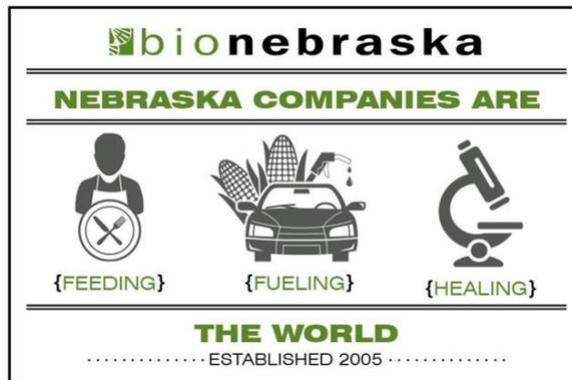
Pfizer Invests in Gene Therapy Facility in North Carolina

Pfizer announced an additional \$500 million investment at its state-of-the-art gene therapy R&D facility in Sanford, North Carolina. This facility will grow the company's footprint in North Carolina to 3,600 workers. There are 650 in Sanford and expansion will add 300 more new jobs.

Lilly Shuffles Executives Overseeing Oncology

Eli Lilly announced several shifts in its executive ranks, including naming Josh Bilenker, head of Loxo Oncology when it was acquired by Lilly for \$8 billion, as interim head of cancer research. At the same time, an architect of that deal will be stepping down: Darren Carroll, head of business development, will retire. Lilly will transfer his duties to other executives.

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