

Read now to find out about the latest collaborations and Nebraska's high rankings in business and bio science technology breakthroughs!

bionebraska
life sciences association



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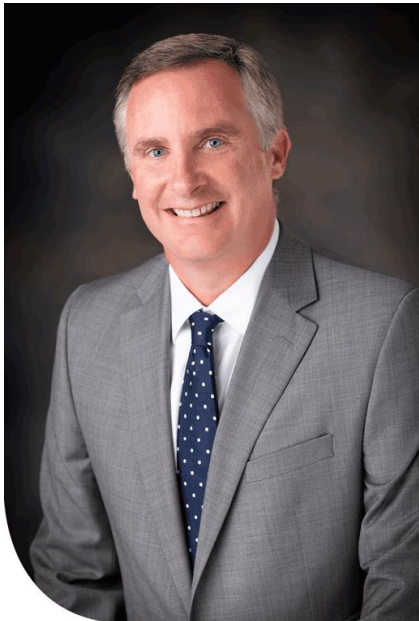
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July 2019 | Member Newsletter

Phil Kozera

Letter from the Executive Director



Phil Kozera
Bio Nebraska
Executive Director
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World Congress Highlights Great Opportunity for Nebraska

Nebraska was well represented at the BIO World Congress of Industrial Biotechnology in Des Moines earlier this month. It was the first time that the Midwest was host to the convention and I was pleased to see a strong Nebraska showing. The trade show was an opportunity to learn about advances in renewable chemicals, synthetic biology, enzymes, food ingredients and biofuels, and to engage companies that are looking to expand in the United States.

This month we were very pleased to see the Veramaris plant in Blair open its animal nutrition facility. Veramaris is a joint venture between Evonik and DSM. The new production plant will produce omega-3 fatty acids for salmon farming and will provide 15 percent of global demand.

Bio Nebraska was a sponsor of the Governor's Summit on Economic Development on July 17. During his opening remarks, Governor Ricketts announced that in 2018 Nebraska had more economic development projects than Kansas, South Dakota and North Dakota combined. He also commented that the biosciences were a great source of strength for the state.

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On July 23, Commerce Secretary Wilbur Ross announced the grantees under EDA's 2019 Regional Innovation Strategies (RIS) program competition. I was very pleased to see the Omaha Medical Technology Pipeline, a joint effort among the University of Nebraska Medical Center, the University of Nebraska at Omaha, the Nebraska Business Development Center, Metropolitan Community College, and the Omaha Chamber of Commerce receive an award. The project will align and motivate existing infrastructure to support medical technology innovation and commercialization.

On the federal legislative front, Bio Nebraska is monitoring Congressional efforts to lower Medicare drug pricing by replacing a market-based approach with government-binding arbitration. We would like to see lower out-of-pocket costs for Nebraskans but are working to ensure that any new legislation doesn't limit patients access to cutting-edge technologies and negatively impact their quality of care. We will continue to monitor.

In closing, please mark your calendar for the next Bio & Beers scheduled for September 12 at Lazlo's in the Lincoln Haymarket and the Celebrating Nebraska Women in STEM luncheon on October 16 in Omaha.

Best regards



Phil Kozera

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Upcoming Events



Bio & Beers

September 12
Lazlo's in the Haymarket
Lincoln, NE



Celebrating Women in STEM

October 16
Omaha, NE

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Celebrating Women IN **STEM** 2019

SAVE THE DATE

Wednesday, October 16, 2019
The Empire Room | 200 S 31st Avenue, Ste 4107
Omaha, Nebraska

For sponsorship opportunities and more details about Celebrating Women in STEM, email Bio Nebraska assistant director Sasha Forsen at sforsen@bionebraska.org.

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State News

[NU Continues to Rack Up IP](#)

NU ranked among the top 100 academic institutions worldwide in earning U.S. patents during 2018, the second straight year it has received the distinction. [See more here.](#)

[28% of Nebraska Farms Led by Women](#)

Around 31% of U.S. farmers and ranchers are women, just shy of one million women doing the job, according to the 2017 Census of Agriculture. About half of Nebraska farms have a female operator and 28% are led by a woman.

[OWH: Nebraska Fiscal Year Ends on High Note](#)

Despite lean months, Nebraska collected \$4.89 billion in net taxes during the year that ended June 30. That's \$176 million – or 3.7% – more than forecast.

[KH: UNL Robots Collect Phenotypes in Field](#)

UNL plant scientists and biological systems engineers automated a system for detecting corn leaf temperature, chlorophyll and water content in less than a minute.



[KH: Makerspace STEM Labs Aimed at Helping Students](#)

Dawson Public Power District and area businesses and organizations are helping students learn about STEM through new mid-Nebraska makerspace labs. DPPD got inspiration from NPPD'S STEM trailer and will send three more trailers, each containing 10 different units, to schools across the ESU 10 area.

[LJS: Omaha, Lincoln Wise To Partner on Tech Workforce](#)

The Silicon Prairie needs workers to sow the seeds of future growth. The Opportunities in Tech partnership between Lincoln and Omaha will help the metro areas work together on recruiting. This “super region” with 1.3 million residents, as Lincoln Chamber of Commerce President Wendy Birdsall calls it, becomes more powerful through collaboration.

[HIV Is Eliminated from the Genomes of Living Animals](#)

Researchers at UNMC and Temple University for the first time eliminated replication-competent HIV-1 DNA - the virus responsible for AIDS - from the genomes of living animals. The study, reported online July 2 in the journal *Nature Communications*, is a step towards a possible cure for human HIV.

[OWH: In 80 Years, Summers in Nebraska Will Be Hot](#)

Like it or not, global warming is bringing hotter summers to Nebraska. By the time today’s infants reach age 80, Omaha’s summertime highs could be like those along the Mexico border.



[JV Starts Producing Feed for Sustainable Salmon Farming](#)

Veramaris, a joint venture between Evonik and the Dutch company DSM, commissioned its production plant in Blair. The world’s largest fermentative manufacturing facility using natural marine algae will reduce pressure on ocean fish and enhance ocean biodiversity.



[Gov. Ricketts Attends Veramaris Grand Opening](#)

Veramaris’ \$200+ million investment in Blair adds to Nebraska’s growing success in bioscience. Today, the Cornhusker State is home to over 1,000 bioscience companies, which cumulatively employ more than 16,000 Nebraskans. In 2017, Nebraska attracted over \$500 million in new bioscience investments.

“Veramaris’ innovative production of omega-3 fatty acids from natural algae is a breakthrough in animal nutrition and a welcome addition to our ag community,” said Gov. Ricketts. “The company’s

decision to do business in Nebraska is a testament to our state’s reputation as a great place for bioscience firms to invest and to grow.”

[Evonik And Vland Extend Partnership](#)

Evonik and Vland have signed a broader partnership in the field of probiotics for animal nutrition and enzymes for industrial applications.

[Bio Sciences Can Learn from Government SCIFs](#)

The government maintains secrecy in areas called Sensitive Compartmented Information Facilities (SCIFs). Pharmaceutical, medical device and other industries where intellectual property is held at a premium could benefit from facilities with SCIF standards.

[Beatrice Biodiesel Plant to Shut Down](#)

After a three-year run of producing fuel, a Flint Hills biodiesel plant in Beatrice is winding down operations. The 50-million-gallon plant that produces biodiesel using a variety of waste fats and oils such as recycled cooking oil, vegetable oil, tallow, and distillers’ corn oil, is at a competitive disadvantage to plants that use soybean oil. [\(Read more here.\)](#)

[Zoetis Acquires Platinum Performance](#)

Zoetis will acquire Platinum Performance, a privately held, nutrition-focused animal-health company, to enter the wellness field for horses, dogs and cats and diversify its portfolio in equine and petcare markets.

Celerion: How to Develop Vaccines for Insect-Borne Infections

Celerion's experience in managing these early clinical studies in multiple countries, combined with immunogenicity assessment labs, is key to successful early studies of vaccines for Zika, Chikungunya and Lyme Borellia.

Q&A with Michael Dixon

Michael Dixon, CEO of UNeMed corporation, provides an overview of UNeMed and its goals. Biomedical and translational research at UNMC has grown significantly over the past decade. In 2018 more than \$150 million in research expenditures led to 111 inventions from faculty, students and staff. UNeMed evaluated each invention for patent and market potential.

Nebraska Economic Development Director to Step Down

Gov. Pete Ricketts will begin searching for an economic development director after Director Dave Rippe announced plans to step down Aug. 9. Rippe, who led the Nebraska Department of Economic Development for 18 months, will return to Hastings, where he plans to work in real estate and talent development.

NPPD Wins National Energy Innovator Award

NPPD received the Energy Innovator Award from the American Public Power Association at the APPA's national conference in Austin, one of nine public power utilities recognized.



Gov. Ricketts honors Jim Herbert, Neogen chairman and founder, and Neogen GeneSeek workers for job growth in state during a series of visits to successful companies.

LJS: Gov. Ricketts Visits Neogen GeneSeek

When Neogen bought GeneSeek in 2010, it considered moving the operation out of Lincoln. But then the state of Nebraska asked how it could help to keep the company here, said Jim Herbert, chairman and founder of Michigan-based Neogen told the governor. "We like to say we chose Nebraska and we chose Lincoln by choice rather than by chance," Herbert said. The company has grown from 32 employees in 2010 to 183 today, he said.



[Registration Open for NUtech Customer Discovery Training](#)

NUtech Ventures, the Center for Entrepreneurship and the Nebraska Business Development Center are leading a free, five-week customer discovery training program beginning Sept. 18. Registration is available [here](#) for NU faculty, scholars and students. “We’re looking forward to offering a program that helps connect research with real-world application,” said Brad Roth, NUtech Ventures executive director.

[UNMC, UNeMed Drug Conference Starts Sept. 30](#)

The second Midwest drug development conference will feature 16 institutions from 12 states, representing a region of 780,000 square miles. UNeMed and UNMC are primary event sponsors. Learn more at www.mwdrugdevelopment.com.

[Nebraska Space Bread Helped Launch Food Science Program](#)

The push to land on the moon 50 years ago helped launch the UNL Department of Food Science and Technology. KETV retold a nearly forgotten slice of history on how NU scientists irradiated bread for NASA in Apollo and Skylab missions. [See more here.](#)



Brian Chong, left, and Rahul Prajapati, right, are using deep learning technology to automatically identify, count and track the behavior of animals in trail camera images.

Huskers Track, Protect Wildlife Through Tech

When computer science students Brian Chong and Rahul Prajapati finished their Deep Learning class last spring, they could develop an algorithm to identify and count wildlife in camera-trap images. The two were passionate about helping animals and conservationists through technology and continued working together after the class ended.

Pannier, Stains Earn Presidential Early Career Awards

UNL researchers Angie Pannier and Marilynne Stains were named recipients of the Presidential Early Career Award for Scientists and Engineers. The award is the highest honor presented by the United States government to scientists and engineers who are beginning their careers. Pannier, a professor of biological systems engineering, does research in DNA vaccines, tissue engineering and non-viral gene delivery systems. Stains, an associate professor of chemistry, is focused on closing the gap between research and practice in chemical and science education at the post-secondary level.



German European Space Agency astronaut Alexander Gerst aboard the International Space Station with packages of Perfect Crystals.

UNMC Space Crystal Experiment Launched

Gloria Borgstahl, Ph.D., a professor at the Eppley Institute at UNMC, launched a crystallization experiment into space in a payload called Perfect Crystals. The aim is to better understand an enzyme involved in cancer, cardiomyopathy and neurodegeneration.



UNO Athletic Training Instructor Sam Wilkins shows students the Anatomage Table.

[Taking STEM Visualization to Next Level](#)

UNO purchased the Anatomage Table, a virtual tool used to help students study the inner workings of the human body. UNO also uses the table in its Bodymodels program, which extends biomechanics lessons to K-12 teachers.



National News

[Here Come More Emerging Technologies of 2019](#)

Which of today's technologies will shape tomorrow's world? A new report compiled by the World Economic Forum reveals some of the breakthrough innovations that are expected to radically impact the global social and economic order. Some we make here in Nebraska!

[Maggots: A Taste of Food's Future](#)

The black soldier fly's remarkable ability to transform nearly any kind of organic waste into protein could revolutionize global food supplies. *The Washington Post* examines potential benefits for the environment and food resources from black fly larvae.

[Alzheimer's BACE Inhibitor Sidelined](#)

Amgen, Novartis and Banner Alzheimer's Institute ended two pivotal phase II/III studies in the Alzheimer's prevention initiative generation program. They said potential benefit for study participants did not outweigh risks.

[ADM Introduces Vegan DHA/EPA Blend with Qualitas Health](#)

Archer Daniels Midland Company unveiled a new line of algal DHA and EPA blends available via a collaboration with Qualitas Health, a leader in algae cultivation, for use as human nutrition supplements aiding cognitive, heart, immune system or eye health.

[Pfizer Buys Therachon](#)

Pfizer acquired Therachon Holding AG, to augment its rare-disease portfolio. Pfizer paid Therachon \$340 million with an additional \$470 million milestone payments contingent on development of TA-46, an investigational medicine for short-limb dwarfism.

[Yellow Wood Partners to Acquire Dr. Scholl's](#)

Yellow Wood Partners has agreed to buy the Dr. Scholl's footcare business from Bayer for \$585 million.

[Pyxis Founded with Financing Led by Bayer](#)

Building on new insights in tumor biology, Pyxis Oncology launched with \$22 Million in series A funds to develop antibodies focused on novel immuno-oncology targets in the tumor microenvironment. Bayer led the fund.

[Genentech New Flu Treatment Working in Kids](#)

XOFLUZA, a new oral suspension, is a well-tolerated and effective potential treatment for the flu in otherwise healthy children, according to the first global phase III study investigating one-dose flu treatment.

[ViiV Showcases AIDS Innovations](#)

ViiV Healthcare, majority-owned by GSK, along with Pfizer Inc. and Shionogi Limited, presented 20 abstracts from its late-stage pipeline and treatments at the 10th International AIDS Society Conference on HIV Science in Mexico City. ViiV is the only pharmaceutical company solely focused on HIV. Data spanned the company's new options for people living with HIV.

[J&J's Quest for HIV Vaccine Reaches Exciting Milestone](#)

A new study will evaluate an investigational vaccine regimen in eight countries for its ability to protect people from HIV infection. Janssen Vaccines, part of Johnson & Johnson, announced it would begin a second efficacy study to test its mosaic-based vaccine concept.

[GSK Has Positive Results in Preventing Ovarian Cancer Recurrence](#)

GlaxoSmithKline said Niraparib improves progression-free survival as a maintenance therapy after treatment with first-line platinum-based chemotherapy for ovarian cancer, regardless of their biomarker status.

[Stigma Burdens Migraine Patients](#)

Lilly said discriminating attitudes towards people with migraine point to a need for appreciation of the neurologic disease. The analysis was presented at a conference along with data from Lilly's phase III pivotal studies of Emgality in chronic and episodic migraine.

CNN: Pfizer, Mylan Consolidating Off-Patent Lines

Pfizer is putting its Upjohn off-patent portfolio, including Lipitor and Celebrex, into a new company with Upjohn rival Mylan, which makes EpiPens. Pfizer will control 57% ownership and Mylan shareholders would own the rest. The new company will generate \$20 billion in revenue and be based in the U.S.

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