



March 2017 | Member Newsletter

Phil Kozera

Letter from the Executive Director



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Let's Bring It All Together at the Bio Nebraska Annual Meeting April 27

Spring is finally here. I hope that everyone is enjoying the recent warm weather and spending time outdoors. I also hope that your calendar is marked for our Annual Celebration on April 27 from 5 to 7:30 p.m. at SAC Aerospace Museum in Ashland. The Annual Celebration provides an excellent opportunity for us to gather, socialize with colleagues and highlight our industry.

This month I had the opportunity to visit with Professor Misty Wehling and members of the Southeast Community College Biotechnology Advisory Board. The program provides students with a background in biology, chemistry and biotechnology. I was pleased to see the program's progress and meet a few students.

"With our abundant resources in feedstocks, expertise, bio-based manufacturing, crop science, animal genetics and animal health, Nebraska can be a global leader in ag biotechnology."

I also had the pleasure of attending the Governor's Ag Conference in Kearney, as well as the opportunity to join the Omaha Chamber and Governor Ricketts at a social celebrating National Ag

Week. With our abundant resources in feedstocks, expertise, bio-based manufacturing, crop science, animal genetics and animal health, Nebraska can be a global leader in ag biotechnology. Commodity agriculture continues to evolve. Emergence of high-tech, high-growth jobs based on value-added ag will diversify our job base as we help feed and fuel the world. This growth should be fostered.

Thank you to UNeTech Associate Director Joe Runge for the invitation to tour the new institute. UNeTech is an innovative collaboration between UNMC and UNO. UNeTech's mission is to incubate early stage technology firms and foster new companies. Our state's outstanding medical R&D is a foundation for new jobs that will enhance healthcare. This growth should be nurtured.

On the legislative front, it has been a busy and productive month focusing on incentives and conditions to promote growth.

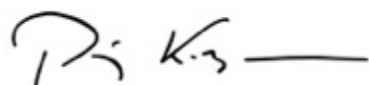
Bio Nebraska testified in front of the Banking, Commerce and Insurance Committee on LB 641. This bill creates a bioscience-specific program within the Nebraska Business Innovation Act. I'm pleased to report that LB641 was voted out of committee and that Senator Morfeld made it his priority bill.

In addition, Bio Nebraska joined the Omaha Chamber and Lincoln Chamber in testifying to the Revenue Committee in support of LB 557. This bill is referred to as Go Nebraska. It overhauls the Nebraska Advantage, including a new Tier 7 which would recognize investment in high-skills and high-wage jobs. It also provides for a simplification of the Nebraska Advantage.

Finally, Bio Nebraska remains on the look-out for new programs that deliver cost savings to our members. We are excited to announce that we recently signed an agreement with UPS, the world's largest package delivery company. UPS offers speed, reliability, traceability and special savings for our members. To learn more and take advantage of program savings, please contact Dave Boegly at dboegly@ups.com or 402-547-0188.

I look forward to seeing everyone on April 27. We have so much to celebrate together for what we have achieved, along with exciting, engaging challenges for our future.

Yours,

A handwritten signature in black ink, appearing to read 'Phil', followed by a horizontal line.

Phil



Upcoming Events

[Ethanol Emerging Issues Forum](#)

April 13–14

LaVista, NE

Bio Nebraska Annual Celebration

April 27, 5 p.m. to 7:30 p.m.

SAC Aerospace Museum

Ashland, NE

Process Controls Essentials Short Course

May 8-9

University of Nebraska-Lincoln

Life Sciences on the Links

June 8

Iron Horse Golf Club, Ashland



Bioscience Leader Spotlight



Rieke Metals Builds on Founders' Legacy in Chemistry

Pick a focus, and then be great at it. That's the way that Rieke Metals has developed their position as a specialty supplier of organometallic and organic chemistry products.

Lincoln-based Rieke makes a broad line of organozinc halide reagents and poly-3-alkylthiophenes. They offer over 800 organometallic building blocks and over 8,000 fine chemicals and can custom manufacture many more. In some niches, they're a world leader in capability and volume.

Brad Stratton has been working at Rieke Metals for nearly 20 years. Now wearing many hats, he joined the company after graduation from UNL in chemistry and computer science.

"One of the benefits of working at Rieke Metals is the opportunity to be involved in many aspects of the business that are meaningful to the success of the business," Stratton says.

Reuben and Loretta Rieke founded Rieke Metals in 1991 with the goal of developing highly reactive metals and novel reagents to advance scientific research. Dr. Rieke spent over 40 years researching and manufacturing organozinc and Grignard reagents.

The company, purchased in 2014 by Blue Diamond Capital, has carried on with Dr. Rieke's legacy and core values, paying strict attention to quality and agile responsiveness.

The Rieke team has over 125 years of shared experience conducting inert atmosphere reactions. They partner with many of the largest and most innovative pharmaceutical and electronics companies in the world, while also serving the academic research community.

Rieke Metals core competencies cross over many diverse market segments, including:

- Preparation and use of organometallic reagents
- Synthesis involving air & moisture sensitive chemistry
- The manufacture, handling and use of zinc, magnesium and other organometallic reagents
- Carbon-Carbon bond forming reactions
- Synthesis using condensation reactions
- Preparation of specialty organic compounds
- Process development and scale-up

Rieke Metals' goals include growing its pipeline of new products offered across all relevant market segments and expanding the firm's manufacturing capability to maintain projects from R&D through commercialization.

"We want to partner with customers in the pharmaceutical, ag, electronics and material science industries to support their work in development through scale-up to manufacturing," Stratton says. "Our technical abilities and know-how are instrumental in R&D of novel compounds."



State News



Gary Madsen, ProTransit CEO and former entrepreneur in residence at UNeMed.

Omaha's ProTransit Nanotherapy Nets DoD Grant

A \$1.7 million DoD grant will help ProTransit Nanotherapy investigate a new spinal injury nanoparticle invented by former UNMC researcher Vinod Labhasetwar. The particle has shown potential when injected immediately after a spinal injury. ProTransit was co-founded by Labhasetwar, now at Cleveland Clinic, and Gary Madsen. DoD is interested in their Pro-NP

nanoparticle for battlefield use to prevent further damage after spinal injuries, Madsen said. The technology also has civilian applications and may encourage the body's natural repair mechanism to heal the injury, he said.

Advent Blog Sniffs Out Unusual Trademark Case

Bio Nebraska member Advent, an IP law firm, notes that words, phrases and graphics are commonly trademarked, but companies also protect shapes, sounds, flavors, textures or even scents. The Advent blog reviews Hasbro's effort to protect the scent of Play-doh.

Epicrop Gains \$3 Million Develop Crop Epigenetics

Epicrop Technologies, a Lincoln-based startup using epigenetics to improve crop yields, has raised \$3.2 million in Series A funding. KC venture firm TechAccel invested alongside local investors, including North Forty Ventures, the venture firm of Jeff Raikes, ex-CEO of the Gates Foundation and ex-president of Microsoft Business, plus Nelnet, Speedway Properties and New York investment bank Allen & Company.

Adjuvance Moving to Innovation Campus

Adjuvance, started by Hebron native Dr. Tyler Martin, which will use a \$1.5 million NIH grant to study products that enhance vaccines, is relocating into NIC and will use the Biotech Connector wet lab. The Connector is a partnership between NIC, UNL, Invest Nebraska, the Department of Economic Development and Bio Nebraska.

Celerion Implements Biometric Fingerprint Technology

Celerion, a provider of early clinical research solutions, announced it is using Verified Clinical Trials (VCT) biometric fingerprint technology to prevent dual enrollment in clinical trials.

Evonik Rolls Out Probiotics In Asia

Antibiotics are used in Asian poultry farming to prevent illness from pathogenic bacteria like *Clostridium perfringens*, which causes billions in losses each year. Evonik's Ecobiol uses probiotics to maintain healthy intestinal flora and is being introduced in Asia as an alternative for antibiotics in poultry and shrimp production.

Leaders Tell Legislature NU a Force for Growth

NU President Hank Bounds and Board of Regents Chairman Bob Whitehouse, along with students and leaders from academics, agriculture and business, voiced support at the Legislature's Appropriations Committee for economic growth and affordable education. Bounds highlighted NU's **\$3.9 billion annual economic impact**, a 6-to-1 ROI, and the 10,000-plus graduates NU supplies each year for the workforce.

Why Do Some Girls Lose Interest in Science?

Interest in science is the same for girls and boys until girls lose interest between fourth and eighth grades. UNL sociologists surveyed 444 middle schoolers and found that gender norms, stereotypes about scientists and friendships may be playing large roles in this trend. The study was published in the *Social Sciences* and funded by the NIH.



UNL's Juan Cui builds RNA web tool.

UNL Tool Boosts Gene Analysis

UNL scientists have found that microRNAs can migrate between organisms and possibly affect genes in their new hosts. One of those researchers, Juan Cui, has developed the first automated tool for distinguishing between native and migratory microRNA in humans and other species. The ***MicroRNA Discovery***, a web-based platform, gives researchers worldwide access to a parallel-computing cluster that can sort 1.5 billion nucleotides in 12 hours. The team received funding from the Centers of Biomedical Research Excellence at NIH.

Omaha Targets a Great Future

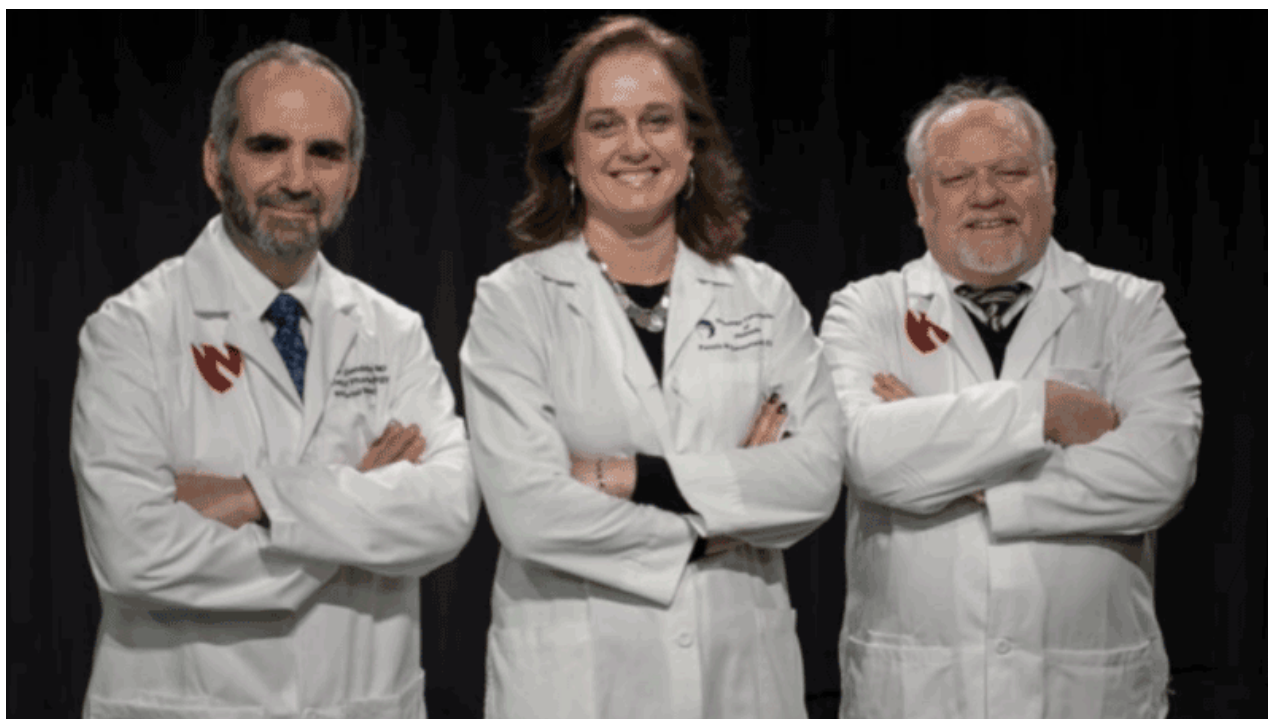
The Greater Omaha Chamber, United Way of the Midlands and Urban League of Nebraska have launched Strategic4Sight, an effort to chart a bold future for business, social services, race relations and workforce in Greater Omaha.

Energy CEO to Speak at Ethanol 2017 April 14

National ethanol/biofuels experts from across the nation will be in Omaha for the annual Ethanol: Emerging Issues Forum, April 13-14, La Vista Conference Center. Emily Skor, CEO of Growth Energy, is a featured speaker.

PCDC Loan Helps New Brewery

Lost Way Brewery, the first recipient of Phelps County Development Corporation's new building improvement program, was founded Mark and Jessica Kraus and Jason and Kimberly Hines. The BD execs and spouses are purchasing the 4,000-square-foot former Sunglow Dairy and intend to create a thriving brewery and tasting room.



Leading the Parkinson's study were (left-right) Howard Gendelman, UNMC, Pamela Santamaria, Nebraska Medicine, and R. Lee Mosley, UNMC.

Parkinson's Drug Shows Promise in Phase 1 Study

A new drug for Parkinson's disease was safe and generally well tolerated during preliminary stages of a human trial conducted at UNMC, according to published findings in the *npj Parkinson's Disease* medical journal. The neurodegenerative disorder, with no cure and limited treatments, affects nearly one million Americans. The drug showed modest improvements in neurological functions and has future promise.



National News

Gottlieb is Trump's Pick for FDA commissioner

Scott Gottlieb, a former FDA deputy commissioner for President George W. Bush and an adviser to GlaxoSmithKline, Bristol-Myers Squibb and Cell Biotherapy, was nominated by President Donald Trump to be FDA commissioner. Gottlieb is expected to push for deregulation, getting tougher on unsafe foods, blood supply safety, reduced restrictions on off-label drug uses and faster generic drug approvals.

Will Liquid Biopsy Revolutionize Cancer Treatment?

Novella Clinical is offering a free white paper, the Promise of Liquid Biopsy Technology, an overview on its potential impact on cancer diagnostics and therapies.

J&J Issues the GenH Challenge

Johnson & Johnson is inviting breakthrough ideas to change global healthcare. **GenH Challenge**, a global social venture competition, seeks solutions for tough world-health problems and offers \$1 million in cash and other incentives to help six winners bring big ideas to life.

Zoetis: Pets Enhance Wellbeing of Their Humans

Zoetis, along with the Human Animal Bond Research Institute, is promoting a campaign that features videos and social-media tools veterinarians can use to show **how important that bond is to human health.**

Novozymes New Enzymes Increase Ethanol Yield

Novozymes' new Spirizyme enzymes convert sugar that's otherwise lost into ethanol, allowing a plant producing 100 million gallons per year to turn 11 million pounds of wasted sugar into 700,000 gallons of ethanol, adding nearly \$1 million in revenue.

Climate Corp Collaborating with Koch Ag

The Climate Corporation, a subsidiary of Monsanto, and Koch Agronomic Services are working on precision ag applications so farmers can add a layer of customized crop nutrient data onto Climate's FieldView, a platform that is used on more than 100 million acres across the United States, Canada and Brazil.

Praxair Honored for Ethics

Ethisphere Institute has listed Praxair in its 2017 Most Ethical Companies, one of three chemical companies so honored. The award recognizes Praxair's culture and compliance throughout the business.

Monsanto Donates Middleton Research Facility to UW-Madison

Monsanto donated a \$10 million biotech facility in Middleton, Wis., to UW-M. The facility features 20 greenhouses, 15,000 square feet of controlled environments and 50,000 square feet of labs on 4.5 acres.

Biotech Potatoes Store Longer and Resist Blight

J.R. Simplot's biotech potatoes, recently approved by the FDA, are second-generation potatoes that have enhanced cold-storage capacity and resist late blight.

Researchers Developing Climate Change-Resistant Biotech Wheat

Stanford University and the Carnegie Institution for Science are developing biotech wheat that better tolerates warmer and drier climate conditions. The researchers identified a gene, BdMUTE, that is a master regulator of cell behavior, making it a target in crop development.

Biofuels Could Cut Jet Particle Emissions

A Canadian study using a NASA DC-8 found that a 50-50 mixture of conventional fuel and biofuel cuts jet particle emissions as much as 70%. Researchers expect that airlines will adopt biofuel within 10 years.

 **bionebraska**

NEBRASKA COMPANIES ARE



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