



IOWA BIOTECH
SHOWCASE & CONFERENCE

Food Insecurity: Facing the Future with Innovation

March 7 & 8, 2023

FFA Enrichment Center

PROGRAM & AGENDAS

SOCIAL MEDIA & WIFI



@iowabio



#IBSC2023

www.facebook.com/iowabio



www.linkedin.com/company/iowa-bio



WiFi

Network: DMACC-Public

(No Password Needed)

1:1 PARTNERING MEETINGS

One of the great features at the Iowa Biotech Showcase & Conference is our 1:1 Partnering Meeting scheduler that lets you network with other attendees when it's convenient for you! Use the information below to log into your profile and request meetings during the event:

Website: <https://ibsc2023.meeting-mojo.com/register>

User ID: The email address listed on your registration

Password: Sent via email following your registration – can be reset at any time

- Go to 'Schedule' to request and confirm meeting requests.
- Browse the site to view profiles, request private meetings and send messages to participating attendees. You will receive a system email every time a meeting is requested, confirmed or cancelled.
- Need to reset your password? Select 'Account' to update your login and profile information.
- Questions? The website FAQ contains instructions on how to use the private meeting system.

THANK YOU FOR ATTENDING



Jessica Hyland, J.D.

Executive Director

jessica@iowabio.org

SPONSORS

BIOTECH SHOWCASE SPONSOR



BIOTECH LEADER AWARD SPONSOR



KEYNOTE SPONSOR



VIP DINNER SPONSOR



THEME SPONSORS



PANEL SPONSORS



AG OUTLOOK SPONSOR



LEGISLATIVE UPDATE SPONSOR



RECEPTION SPONSOR



STEM SPONSORS



BREAKFAST SPONSORS



LUNCH SPONSOR



LANYARD SPONSOR



COFFEE & SNACK SPONSOR



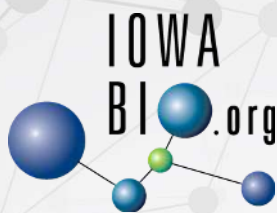
GOLD SPONSOR



SILVER SPONSORS



ABOUT IOWABIO



Since 1994, the Iowa Biotechnology Association (IowaBio) has provided benefits and services to promote the interests and growth of the life sciences industries in Iowa. IowaBio is a non-profit, membership-based organization that represents companies across the state committed to advancing biotech in human and animal health, food and agriculture, and biofuels and the environment. IowaBio's diverse membership includes emerging companies, universities and colleges, state and federal associations, and service and support companies.

SPECIAL THANKS

We would like to thank the following individuals for their time and efforts in helping make this year's conference a success:

Conference Planning Committee

- Anders Thomsen, Eurofins Scientific (IowaBio Chair)
- Mat Muller, Corteva Agriscience
- Sean Solberg, Fredrickson & Byron
- Jim Reecy, Iowa State University
- Mike Frey, Novo Nordisk
- Luke Bibby, Proliant
- Chris Riley, ADM
- John Eubank, Feed Energy
- Joe Leo, BrownWinick Law
- Macenzie Rubin, Bayer
- Marian Flattery
- Michael Walter, University of Northern Iowa
- Adrienne Greenwald, VentureNet Iowa
- Arun Iyer, Boehringer Ingelheim

Biotech Showcase Committee

- Adrienne Greenwald, VentureNet Iowa
- Liz Keehner, Next Level Ventures
- Adam Koppes, Iowa Farm Bureau Federation

Iowa Biotech Leader Award Committee

- Billi Hunt, America's Cultivation Corridor (Award Sponsor)
- Irma Fisher, Bayer
- Todd Krone, PowerPollen
- Michael Schultz, Viewpoint Molecular Targeting
- Mary Pat Wohlford, Drake University

Biotech Showcase Judges

- Joe Leo, BrownWinick Law
- Donna Ramaecker Zahn, Iowa State University
- Tom Swegle, MedCara Pharmaceuticals
- Kaylee Williams, InnoventureIowa
- Anthony Zlaket, Unity Point

Additionally, we'd like to thank all of our speakers, coordinators, generous sponsors, and event attendees!

MARCH 7 SCHEDULE OF EVENTS

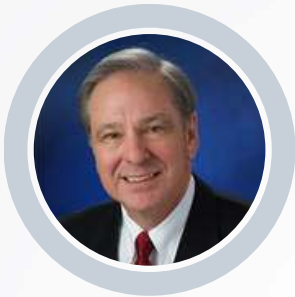
- 8:00AM** **Registration, Breakfast, 1:1 Partnering Meetings**
Sponsored by CRB
- 9:00AM** **Welcome Remarks**
- Jessica Hyland, Executive Director, IowaBio
 - Rob Denson, President, Des Moines Area Community College (DMACC)
 - Anders Thomsen, IowaBio Chair, Eurofins
- 9:30AM** **Biotech Showcase Competition**
Sponsored by Eurofins
- Genvax Technologies (9:30am - 9:50am)
 - Krishi Inc. (9:50am - 10:10am)
 - Photonome, LLC (10:10am - 10:30am)
- 10:30AM** **Break: 1:1 Partnering Meetings, Exhibit Time**
Sponsored by Corteva Agriscience
- 11:00AM** **Biotech Showcase Competition**
Sponsored by Eurofins
- Continuum Ag (11:00am - 11:20am)
 - Midland Co. (11:20am - 11:40am)
 - Zymosense (11:40am - 12:00pm)
- 12:00PM** **Lunch**
Sponsored by Iowa State University Research Foundation
- 1:15PM** **The Future of Biotech Innovation in Iowa: Students in Life Sciences**
Sponsored by McKee, Voorhees & Seese, PLC, KENT Corporation, & BIO
- 2:30PM** **Break: 1:1 Partnering Meetings, Exhibit Time**
Sponsored by Corteva Agriscience
- 3:00PM** **2023 Ag Outlook with Mike Naig, Iowa Secretary of Agriculture**
Sponsored by Corteva Agrisciences
- 3:45PM** **Industry Legislative Update with Sara Allen, Cornerstone Government Affairs & Kristin Murphy, Biotechnology Innovation Organization**
Sponsored by ADM
- 4:30PM – 6:00PM** **Reception and Biotech Showcase Award Presentation**
Sponsored by University Iowa Research Foundation, BrownWinick Law Firm & Eurofins

WELCOME REMARKS



JESSICA HYLAND – EXECUTIVE DIRECTOR **Iowa Biotechnology Association**

Jessica Hyland joined IowaBio as the Executive Director in 2019. Hyland worked as a legislative lobbyist for 11 years: first, as Government Affairs Counsel and the Director of Governmental Affairs for the Iowa League of Cities, then as an associate at Davis Brown Law Firm, and through her own business, Harder Government Relations, advocating for a variety of clients from businesses and associations to local governments. Hyland joined IowaBio from the Iowa Association of Business and Industry (ABI), an organization representing 1,500 member companies, where she was the Director of Public Policy.



ROB DENSON – PRESIDENT **Des Moines Area Community College (DMACC)**

Rob Denson was appointed the fourth President of Des Moines Area Community College on November 1, 2003. Rob grew up on a farm near Homestead, Iowa, south of the Amana Colonies, and graduated from high school in Marengo, Iowa. The first native-born Iowan to be President of DMACC, Rob has a B.S. in Political Science and Economics and an M.S. in Higher Education Administration from Iowa State University. He graduated from Law School at the University of Florida in 1979.



ANDERS THOMSEN – IOWA BIO CHAIR **Eurofins**

Anders Thomsen serves as the Business Unit Manager for Eurofins Nutrition Analysis Center in Des Moines, IA. Eurofins Scientific through its subsidiaries is the world leader in food, environment, pharmaceutical and cosmetic product testing, discovery pharmacology, forensics, advanced material sciences, and in agrosience Contract Research services.



SCIENCE

AT YOUR SERVICE



Eurofins is the leader in food, feed, and supplement testing, support, and development services. Whether you are a supplier, processor, manufacturer, packer, distributor, or retailer, your bottom line depends on top-of-the-line service from your industry partners.

Our laboratory network offers integrated solutions spanning your product's life cycle.



**Training, Consulting,
Auditing & Certification**



**Animal Health
& Medicated Feed**



**Nutrition & Food
Safety Testing**



**Chemical, Ingredient
& Authenticity Verification**

35 YEARS
TESTING FOR LIFE

Contact us today!
We are science at your service.

eurofinsUS.com/food-testing

2023 SHOWCASE COMPANIES & PRESENTERS



GENVAX TECHNOLOGIES

www.Genvax.com

Genvax Technologies is a startup animal vaccine company located in Ames, Iowa. We have a dynamic team of experienced scientists and entrepreneurs poised to develop next generation mRNA + nanoparticle vaccines. This isn't the first go-around for co-founders Joel Harris and Dr. Hank Harris, who successfully created, grew, and sold Harrisvaccines to Merck Animal Health in 2015.

We are focused on developing novel vaccines for the prevention and treatment of animal diseases. We cultivate new ideas to make our world a better place and strive to create a long-lasting impact on animal health world-wide.

We believe in rapidly responding to the world around us. We are Genvax and we are committed to making the world a better place.

JOEL HARRIS – VICE PRESIDENT

Genvax Technologies

In addition to his veterinary industry work as co-founder and CEO of Genvax Technologies, Joel Harris also serves as Executive Director for the Ag Startup Engine, a seed program in Ames, IA. He was Business Development Manager for Vitalize Venture Group, a venture capital investment firm in Chicago. He held COO, CIO, and Vice President roles at Harrisvaccines, an international animal health vaccines company that he and his father Dr. Hank Harris sold to Merck Animal Health in 2015. Harris has a B.A. in Economics from the University of Iowa and a Post-baccalaureate Certificate in Narrative Communications from Northwestern University.



KRISHI INC.

www.KrishiDiagnostics.com

Krishi is developing a portfolio of diagnostics based on its paper-based, low-cost, molecular diagnostic tool that generates an easy-to-interpret colorimetric output at the point of need. Due to the versatility of targeting nucleic acids, the technology has applications in multiple fields including animal, plant, and environmental health. This tool will be indispensable in the fight against animal and plant diseases. It will enhance veterinary stewardship relative to the judicious use of antibiotics, which in turn could help to improve public trust in the decision-making process of veterinarians relative to antibiotic usage in animals. Our diagnostic is simple to operate, allowing anyone to use it to prevent the spread of diseases.

RACHEL MUNDS, PH.D – RESEARCH SCIENTIST

Krishi Inc.

Dr. Rachel Munds is a research scientist who joined Krishi Inc in 2022. Her work with Krishi is focusing on developing diagnostic assays that will rapidly detect genes of interest related to bacteria, viruses, fungi, and other pathogens affecting animal, plant, and environmental health. Dr. Munds specializes in molecular biology, genotype-phenotype associations, and evolutionary biology. Prior to joining Krishi, she spent 4 years as a postdoctoral scholar where she worked on projects focusing on eco-immunology (Univ. South Florida) and primate color vision (University of Calgary). She received her Ph.D. from the University of Missouri in Biological Anthropology. In her spare time, she enjoys hiking, birding, and nature photography.



2023 SHOWCASE COMPANIES & PRESENTERS



PHOTONOME, LLC
www.Photonome.com

Photonome's technology originated at MOgene Green, LLC as part of DOE and internally funded research, and we have recently re-named the company Photonome, LLC to focus on the further development and commercialization of an exciting microbial 'cover crop' that has potential to fix significant amounts of nitrogen and carbon dioxide into the soil.

BRAD FABBRI, PH.D. – CEO, DIRECTOR, AND CO-FOUNDER

Photonome, LLC

Dr. Fabbri has more than 30 years of leadership, strategic, and business experience in plant biotechnology and agribusiness. He earned a Ph.D. in Biochemistry & Molecular Biology from U.C. Davis. Brad then worked for 21 years at Monsanto Company in a variety of technical and strategic positions including leading the Corn Feed Protein group for Renessen LLC, a joint venture between Monsanto and Cargill, serving as the founding site lead for Monsanto's protein engineering group in Cambridge, MA, and serving in strategic roles to identify and develop new business concepts, and merger & acquisition targets. Dr. Fabbri was also selected to be a Monsanto Science Fellow.



ContinuumAg

CONTINUUM AG
<https://Continuum.Ag>

Continuum Ag started in 2015 as a soil health consulting company to help farmers implement regenerative practices while maintaining yields and improving profitability. Regenerative practices include reducing inputs, no tillage, and planting cover crops to maintain living plants on the land at all times. Implementing regenerative practices is critical to rehabilitating and enhancing a farm's ecosystem by improving soil health, water management, fertilizer use, and more.

MITCH HORA – FOUNDER & CEO

Continuum AG

Mitchell Hora is a 7th generation Washington County, Iowa Farmer. Mr. Hora founded Continuum Ag in 2015 to help farmers quantify and improve their soil health. The company's TopSoil Tool helps farmers garner agronomic insights and profit from environmental outcomes, like carbon sequestration. Since launching TopSoil in 2020, Continuum Ag has amassed a footprint of 36 states and 14 countries and one of the largest private soil health databases.



2023 SHOWCASE COMPANIES & PRESENTERS



MIDLAND CO. www.MidlandSeafood.com

Algae-Based RAS™ is a single step wastewater treatment system featuring novel media with surface algae growth. The algae treats and captures all nitrogen and phosphorus from the waste excreted by the fish. The filtered purified water becomes reusable and recirculates back into the fish production system. The captured nutrients are retained in the algae that is then able to be harvested and used as a byproduct. Algae-Based RAS™ simplified design minimizes moving parts, energy requirements, and input costs; simplifies management; and reduces the aquaculture industry's environmental impact

JACKSON KIMLE – FOUNDER, PRESIDENT

Midland Co.

Jackson Kimle has expansive and deep expertise in the aquaculture industry rooted in a passion for innovative food production and seafood. His motivation for aquaculture was founded in the summer of 2013 while working on a small shrimp farm. Since then, Jackson has visited over 15 facilities worldwide, raised over \$7.5 million for aquaculture facility development, and pursued an opportunity to establish a recirculating aquaculture facility in Iowa. This facility was not realized due to the technological constraints which led to the inspiration and founding of the solution—Midland Co. His extensive experience has evolved to a grounded understanding of the unique challenges and opportunities the aquaculture industry faces.



ZYMOSENSE www.Zymosense.com

Zymosense has developed a sensing platform which achieves accuracy without sacrificing ease of use by using fluorescent nanoparticles noncovalently suspended in enzyme substrates to produce ready-to-use activity probes. This platform has been demonstrated to be highly modular with a panel of enzymes including glycosidases, proteases, phosphatases, and lipases and is currently being expanded to more challenging enzymes, such as oxidoreductases and ligases, as well as important cofactors.

DR. NATHANIEL KALLMYER – CO-FOUNDER, PRINCIPAL INVESTIGATOR, AND VICE PRESIDENT OF TECHNOLOGY

Zymosense

Received his PhD in Chemical Engineering from Iowa State University (ISU) in 2021 and Bachelors in Chemical Engineering and Chemistry at Purdue University in 2016. He has 6+ years working with carbon nanotube-based sensors and is co-inventor of the enzyme sensor technology. He has a demonstrated, broad skillset in developing frugal electronic devices (hardware and software development) and mentoring 20 undergraduates on a large range of sensor projects during his time at ISU. His innovative work has been recognized by a NIFA USDA Graduate Fellowship as well as the ISU Brown Fellowship (one of 14 students across the university). Since the founding of Zymosense Inc, Kallmyer has built a lab and managed two simultaneous SBIR projects. He has brought one SBIR project to Phase II (NIST) and will be submitting for Phase II of the other (NSF) in March 2023.



2023 SHOWCASE JUDGES



TOM SWEGLE – CEO **Medcara Pharmaceuticals**

Tom Swegle is a serial entrepreneur with a focus on investing, developing and launching business entities that build value within the prescription and over-the-counter (OTC) pharmaceutical and life sciences sectors. Tom is currently the CEO and Managing Partner for MedCara Pharmaceuticals, a pharmaceutical formulation development and licensing company based in Conrad, Iowa. MedCara's flagship product is WartPEEL®, a compounded prescription for the treatment of resistant warts. The WartPEEL formulation has been assigned three patents and is prescribed by 5,000 physicians to over 40,000 annual patients. Tom has over 20 years of pharmaceutical executive experience, working throughout his career to push the envelopes of commercial strategy for off-label uses of FDA approved active ingredients that are developed from the bench and then marketed and dispensed in a compounding pharmacy business model.



DONNA RAMAEKER ZAHN – GLOBAL OUTREACH STRATEGIST **International Food Policy Research Institute**

Donna Ramaeker Zahn's career has been agriculture and innovation focused from the beginning; recognizing the role that each plays in the vibrancy of economies and advancement of solutions. With more than 30 years of experience in management, strategic planning and public relations she spends her time in the global and local arenas.

As a Research Director for a Fortune 500 company, Donna devised a new approach for faster product launches. That role led her to work with Asia and Africa decisionmakers to integrate genetic innovations into their portfolios. The experience of working in multiple cultures – Indonesia, Vietnam, Nigeria, Kenya, Ethiopia – helped her become an idea factory for those who seek her counsel.



KAYLEE WILLIAMS – INVESTMENT DIRECTOR **InnoVenture Iowa Fund**

Kaylee Williams is an entrepreneur and business strategist for early-stage startup companies. She currently serves as the Investment Director for InnoVenture Iowa, a \$30 million co-investment fund allocated primarily for Seed and Series A financing. She is the former President of VolunteerLocal, a volunteer management software company, and the former Head of Customer Development at Roboflow, a Y-Combinator backed startup pioneering the adoption of computer vision across industries. Williams graduated from the University of Iowa in 2011 with a degree in English, and she is passionate about the arts, community service and inclusion/equity in tech. She is the recipient of the 2022 Young Alumni Entrepreneurial Leadership Award from the University of Iowa.



JOE LEO – MEMBER **BrownWinick Law**

Joe strives to provide his clients with practical and timely legal advice. He makes his clients' business objectives the focus of his advice. Joe believes that understanding your business is essential to providing the legal services your business deserves. He works hard to understand your business objectives and priorities and makes sure your legal strategy matches those priorities and objectives.

IOWA

University of Iowa
Research Foundation

→ UIRF.RESEARCH.UIOWA.EDU



Midland Scientific INC.

Your one-stop shop for all your laboratory needs!
Learn more at www.midlandsci.com



PIVOTAL MOMENTS IN YOUR
BUSINESS DEMAND
COURAGE AND CLEAR VISION.
BROWNWINICK PARTNERS WITH
YOU TO CRAFT **BOLD SOLUTIONS**
ROOTED IN WISDOM AND
EXPERIENCE, SO YOU CAN FACE
THE FUTURE CONFIDENTLY.

Be Bold. Be Wise.
BrownWinick.

666 Grand Avenue, Suite 2000
Des Moines, Iowa 50309
515-242-2400 | 888-282-3515
brownwinick.com

INDUSTRY KNOWLEDGE. TECHNICAL EXPERIENCE.

CHOOSE MVS FOR THE BEST IN IP SERVICE.

Since 1924, McKee, Voorhees & Sease, PLC has proudly protected the creations of clients around the globe. Our attorneys are leaders at ensuring your innovations maintain a strong advantage against the competition while establishing yourself as an authority in your industry, representing corporations, universities, research institutions, small businesses and individuals.

With advanced degrees in biochemistry, chemical engineering, molecular biology, pharmaceuticals and related fields, the attorneys who make up our Biotechnology and Chemical Practice Group possess the industry knowledge, specialized training and technical experience to meet your intellectual property needs, accomplish your business goals and protect your innovations in the United States and abroad.



Meet Our Biotechnology and Chemical Practice Group



Heidi Nebel, B.S.
Chair of the Biotechnology
and Chemical
Practice Group



Cassie Edgar, M.S.
Chair of the Regulatory Practice
Group and Co-Chair of the
Data Privacy and Cybersecurity
Practice Group



Ashley Holland, B.A.
Intellectual Property
Attorney



Jonathan Kennedy, M.A.
Chair of the Litigation
Practice Group



Brian Keppler, Ph.D.
Patent Agent



Kevin Kercher, B.S.
Intellectual Property
Attorney



Jill Link, Pharm.D.
Chair of the Licensing
Practice Group



Sarah Luth, M.A.
Co-Chair of the Data
Privacy and Cybersecurity
Practice Group



Melissa Mitchell, M.S.
Intellectual Property
Attorney



Charles Romano, Ph.D.
Senior
Patent Agent



Julie Spieker, B.S.
Intellectual Property
Attorney

Learn more about our attorneys online at www.ipmvs.com/practices/biotechnology-patents and www.ipmvs.com/practices/chemical-patents.

Let's Create Connections

Contact us today to learn more about how MVS can assist you and fulfill your intellectual property needs.

☎ 515-288-3667

🌐 www.ipmvs.com

✉ www.ipmvs.com/subscribe

2023 AG OUTLOOK WITH MIKE NAIG

Sponsored by Corteva Agrisciences



MIKE NAIG – IOWA SECRETARY OF AGRICULTURE **Iowa Department of Agriculture and Land Stewardship**

Mike Naig grew up on a family farm in the northwest corner of the state near Cylinder, Iowa and he continues to be involved in the operation today. Mike is a graduate of Buena Vista University in Storm Lake with degrees in biology and political science. He and his wife Jaime have three boys.

Mike was elected as the 15th Iowa Secretary of Agriculture in November 2018 and was re-elected in 2022. He previously served as the Deputy Secretary at the Iowa Department of Agriculture and Land Stewardship. In a state where agriculture is a leading economic driver, Mike knows that protecting our air, soil and water is essential to our success. He works with initiatives that encourage public-private partnerships and leads efforts that will protect our natural resources.

As Secretary, he is committed to lead efforts to expand economic opportunities for Iowans and is an advocate on behalf of the hard-working men and women who keep us fed and fueled. Attracting and retaining talent in Iowa agriculture is a reoccurring topic during his 99 county visits and Mike believes we need to continue to engage young people and encourage them to pursue rewarding careers in agriculture.

As the Secretary of Agriculture, he is focused on the following commitments:

Expanding Markets & Trade: Mike is supportive of policies that will open new markets for the farmers of Iowa and is dedicated to expanding opportunities for livestock producers, agribusiness, and crop farmers.

Water Quality & Land Stewardship: As an advocate for healthy soil and water, Mike led the initiative for the Iowa Nutrient Reduction Strategy and will continue to find partnerships to build momentum for water quality.

Promoting Careers in Agriculture: Secretary Naig believes it is important to inspire and engage young Iowans to pursue agriculture careers to retain the knowledge and talent our state has.

INDUSTRY LEGISLATIVE UPDATE

Sponsored by ADM



SARA ALLEN – LOBBYIST

Cornerstone Government Affairs

Sara Allen joined Cornerstone's Des Moines office in October 2016. Sara brings over six years of healthcare experience, as well as years spent lobbying, developing and executing policy positions, engaging grassroots advocates, and assisting with political action committee campaigns and endorsements. Sara brings significant health care and legal expertise to Cornerstone. Most recently, Sara worked as a state lobbyist and staff attorney for the Iowa Hospital Association, representing all 118 Iowa hospitals at the Statehouse and various administrative agencies. In this position, Sara gained expertise in a variety of areas impacting hospitals and other health care providers, including financing and reimbursement, behavioral health, value-based healthcare delivery reform models, informational technology innovation, regulatory and legal compliance, public health initiatives and more. Before her position at the Iowa Hospital Association, Sara worked for a physician staffing company as associate corporate counsel. Sara received her juris doctorate from Drake University and her Business Administration degree from Grand View University.



KRISTIN MURPHY – SENIOR DIRECTOR, FEDERAL GOVERNMENT RELATIONS

Biotechnology Innovation Organization

Kristin Murphy serves as Sr. Director of Federal Government Relations for the Biotechnology Innovation Organization (BIO). Prior to joining BIO, Kristen worked as Sr. Director of Federal Government Affairs at the Association for Accessible Medicines (AAM), and was part of the legislative affairs team at the Ambulatory Surgery Center Association (ASCA). She also worked on Capitol Hill for Congressman Rick Larsen (D-WA) and on former Senate Majority Leader Tom Daschle's re-election campaign. Kristin received her Bachelors from the University of South Dakota and Master of Business Administration in Healthcare Management from Johns Hopkins University.

MARCH 8 SCHEDULE OF EVENTS

8:00AM Registration, Breakfast, 1:1 Partnering Meetings
Sponsored by Fredrikson & Byron, P.A.

Special Remarks from Nigel F. Reuel
Associate Professor of Chemical and Biological Engineering,
Iowa State University of Science and Technology

9:00AM Keynote Address: Iowa's Place on the Global Nutrition Stage
Sponsored by Boehringer Ingelheim

- Presented by Ambassador Terry Branstad, President, World Food Prize Foundation
- Introduction by Grant Menke, Iowa Deputy Secretary of Agriculture

10:00AM Break: 1:1 Partnering Meetings, Exhibit Time
Sponsored by Corteva Agriscience

10:30AM Conservation Cropping: Unlocking Carbon Sequestration Potential in Cover Crops
Sponsored by Iowa State University Department of Biotechnology & Chevron REG

- Mike DeCamp, CEO, CoverCress
- Chris Souder, R&D Crop Efficient Portfolio Manager, Bayer
- Steve Klein, Senior Manager, Marketing, Chevron Renewable Energy Group (REG)
- Luis Copeland, Senior Director of Low Carbon Intensity Seeds and Partnerships, Bunge

11:25AM 2023 Iowa BioTech Leader Award
Sponsored by America's Cultivation Corridor

11:45AM Lunch & Breakout Sessions

Sweet Sustainability: Fermentation-Derived Steviol Glycoside Sweeteners
Erin Marasco, R&D Global Biology Lead, Cargill

Proso Millet: Sustainable Food for a World with More People and Less Water
Patrick Schnable, CEO & Co-Founder, Dryland Genetics, Inc.

Greener Sugars for a Greener Tomorrow
Timothy Jon Bauer, Vice President, Green Plains, Inc.

Food Insecurity Programs in Iowa
Courtney Long, Food Systems Program Manager, Iowa State University Extension and Outreach

1:00PM A Look Ahead – How Iowa Companies Can Capitalize on the Evolving Alternative Protein Market

- Sebastian Bohn, Sub Market Leader, Alternative Proteins
- Pablo Coronel, PH.D., Senior Follow of Food Processing and Food Safety, Process Authority
- Mark Laurenzo, Business Development Manager, Iowa Economic Development Authority (IEDA)

2:00PM Closing Remarks
Jessica Hyland, Executive Director, IowaBio

Dedicated to
the health
and wellbeing
of animals
and people.



Boehringer
Ingelheim



**Iowa Renewable
Fuels Association**

**Carbon sequestration makes
biofuels the future of
transportation across the land,
on the seas, and in the air.**



Iowa Renewable



Fuels Association



1-800-929-2236
www.Total-Water.com



Reduce organic contaminants, produce high
purity water and comply to standards.

Water quality, consistency and reliability are critical issues
for any biopharmaceutical research facility, people involved
in bioproduction, drug discovery or related fields.

Our pharma and biotech water treatment experts can answer
any questions or concerns you have.

Proudly serving Iowa, Wisconsin, Michigan, Illinois, Atlanta,
and surrounding areas.

1-800-929-2236
www.Total-Water.com

2023 KEYNOTE ADDRESS: IOWA'S PLACE ON THE GLOBAL NUTRITION STAGE

Sponsored by Boehringer Ingelheim



AMBASSADOR TERRY BRANSTAD – PRESIDENT
World Food Prize Foundation

Iowa Biotech is excited to announce Ambassador Terry Branstad, President of Iowa-based World Food Prize and Partner with the Branstad Churchill Group, will deliver the 2023 Iowa Biotech Showcase & Conference keynote address!

Former Iowa Governor and U.S. Ambassador to China Terry Branstad is the new president of the Iowa-based World Food Prize Foundation as of January 30, 2023. Established by the late Nobel Peace Prize Laureate and Iowan, Norman Borlaug, the World Food Prize is considered the preeminent award for global agriculture, celebrating research, innovation and advancement in various scientific fields.

Branstad studied at the University of Iowa and at Drake University, finishing his law degree in 1974. In between his undergraduate and graduate schooling, Branstad joined the Army and served in Vietnam from 1969 to 1971, earning the Army Commendation Medal.

Following three terms in Iowa's House of Representatives, Branstad was elected as the state's lieutenant governor in 1978. In the following election cycle, he won the governorship. Branstad took office at the age of 36, making him Iowa's youngest chief executive. Branstad's first stint as governor, covering four terms from 1983 to 1999, made him Iowa's longest-serving governor.

He founded the law firm of Branstad and Associates, LLC and accepted a partnership in Kaufman, Patee, Branstad & Miller. Simultaneously, Branstad served as financial adviser to Robert W. Baird and Co., Inc. and was a visiting professor at the University of Iowa. His appointment as Des Moines University's leader came after President George W. Bush named him head of the President's Commission for Excellence in Special Education. Beginning in 2003, Branstad spent slightly over six years as president of Des Moines University, boosting the school's graduate ranking and seeing DMU become the Wellness Council of America's first Platinum Recognition university. He retired from DMU in October of 2009 to launch a gubernatorial exploratory committee and officially entered the race in January 2010. He then served as governor of Iowa from 2011 to 2017.

Midway through his sixth term as Governor, Branstad became U.S. ambassador to China, serving from 2017 to 2020. He was nominated to the post of U.S. ambassador to China by President Donald Trump on December 7, 2016. He was confirmed on May 22, 2017, and sworn in on May 24, 2017. In September 2020, Branstad announced his resignation, effective early October of the same year.

Introductory Remarks:



GRANT MENKE – IOWA DEPUTY SECRETARY OF AGRICULTURE
Iowa Department of Agriculture and Land Stewardship

Menke comes to the Iowa Department of Agriculture and Land Stewardship from the Iowa Corn Growers Association and Iowa Corn Promotion Board, where he has served as Vice President of Market Development. Prior to that role, he worked as the State Director for the United States Department of Agriculture (USDA) Rural Development. He has also worked as the Policy Director for Iowa Renewable Fuels Association and held a position on the United States Senate Finance Committee staff of U.S. Senator Chuck Grassley.

CONSERVATION CROPPING: UNLOCKING CARBON SEQUESTRATION POTENTIAL IN COVER CROPS

Sponsored by Iowa State University Department of Biotechnology & Chevron REG



MIKE DECAMP – CEO
CoverCress Inc.

Mike DeCamp has more than three decades of experience in agribusiness, corporate finance, law, corporate strategy, and mergers and acquisitions. Prior to joining CoverCress Inc., his work included serving for more than a decade in legal, strategy, and executive roles at Monsanto Company (now Bayer Crop Sciences), a Fortune 500 enterprise and leading global provider of technology-based solutions and agricultural products. During his career, he also founded an agricultural-focused strategic advisory and transaction services firm, and led the corporate finance, capital management, M&A, and strategy functions as CFO and CIO for a private equity firm investing in production agriculture.



CHRIS SOUDER – R&D CROP EFFICIENCY PORTFOLIO MANAGER
Bayer

Chris Souder is the global R&D crop efficiency portfolio manager for Bayer Crop Science. He sets the vision and R&D plan for sustainable corn and soy yield improvements by understanding the intersection of technology innovation, grower needs, and business strategy. Chris has also served as the regional agronomist for Iowa and Missouri for Bayer. Chris is a graduate of Iowa State University and Texas A&M.



STEVE KLEIN – SENIOR MANAGER, MARKETING
Chevron Renewable Energy Group

Steve Klein is Senior Manager, Marketing at Chevron Renewable Energy Group. Steve leads the company's efforts to promote the economic and value-added benefits of integrating biodiesel into distributor and retailer fuel programs.

Prior to joining REG in 2019, Steve worked for Syngenta in a variety of sales and marketing leadership roles. He holds a master's degree in Agronomy and Crop Science from Iowa State University in addition to a bachelor's degree from Utah State University.



LUIS COPELAND – SENIOR DIRECTOR OF LOW CARBON INTENSITY SEEDS AND PARTNERSHIPS
Bunge

Luis Copeland is Senior Director of Low Carbon Intensity Seeds and Partnerships at Bunge. He heads the company's efforts to promote value chain collaborations, drive innovation and build infrastructure to enable adoption and scale of novel feedstock opportunities to meet the world's demand for sustainable food, feed, and energy.

Prior to joining Bunge in 2022, Luis worked for Bayer/Monsanto in a variety of global strategy, product innovation and commercial leadership roles. He holds an Executive MBA with concentration in Social Entrepreneurship from Tsinghua University in Beijing in addition to an engineering degree from ITESM in Monterrey, Mexico.

BREAKOUT PRESENTATIONS

SWEET SUSTAINABILITY: FERMENTATION-DERIVED STEVIOL GLYCOSIDE SWEETENERS

Sweet Sustainability: Fermentation-derived steviol glycoside sweeteners Consumers want great tasting, low calorie foods in their diet. In addition, they are more aware than ever before of the origins of their food and the environmental impacts from production. One solution from Avansya (a joint venture between Cargill and DSM) is to commercialize a fermentation-derived steviol glycoside product (EverSweet™). Steviol glycosides are sweet-tasting, non-caloric compounds originally found in low abundance in the *Stevia rebaudiana* plant. Utilizing a fermentation process that includes an engineered yeast host, Avansya can produce a great tasting high intensity sweetener from renewable sources, decreasing water and land usage, and providing a better life cycle analysis score than commercial-scale production from *Stevia* leaves. This presentation will describe the technical development of the fermentation product as well as the sustainability implications for utilization of EverSweet™, a stevia sweetener



ERIN MARASCO – R&D GLOBAL BIOLOGY LEAD Cargill

Erin Marasco is a Research & Development Leader at Cargill for the Global Biology group. These biotechnologists are innovating in the fields of ingredient discovery, strain development, enzyme applications and metagenomic and microbiome research. Erin helps Cargill business units and their customers with new product development in the agri-food industry.

With over fifteen years of experience in biotechnology, fermentation strain engineering and biochemistry, Erin has led research teams in the development of commercial scale processes for sustainable production of ingredients using fermentation / enzymatic processes. Most recently, she was the Global High Intensity Sweetener Technical lead and supported the formation of the joint venture Avansya, a partnership between Cargill and DSM. Erin holds a Ph.D. in Biochemistry, Molecular Biology and Biophysics from University of Minnesota.

GREENER SUGARS FOR A GREENER TOMORROW

The transition towards a net zero global economy will require collaboration across industries that typically have not been considered part of the complex chemical and materials value chain. Driven by new technologies and global consumer pressure, the chemicals and materials market is evolving from a massively centralized and energy intensive industry into one that is smaller and more agile in its approach. Looking back, the use of sugars as a feedstock for production of bio-based chemicals has been around for more than a century. However, it wasn't until the early 2000's when processes using biogenic carbon sources (e.g., glucose) started taking off. As an example, citric acid has become a successful commodity chemical, using essentially the same microbial fermentation process developed in the early 1920's. In its wake, other biologically produced chemicals and intermediates such as gluconic acid, lactic acid, and 1,3-propanediol have also become global commercial bio-chemical successes. Recently, refocused efforts into specialty materials and chemicals to replace petroleum derived molecules has accelerated the bio-transition, however not without future challenges. Key challenges include the physical constraints related to scale-up capacity and the availability of economic feedstocks. These challenges have led to delays in deployment and additional costs, however, can be overcome by transforming 1st generation ethanol facilities into bio-campuses. These bio-campuses enable technologies by providing a new, economical source of glucose feedstock; increasing scale-up speed through existing infrastructure; and minimizing carbon intensity through process integration opportunities. The time to act and collaborate is now.



TIMOTHY JON BAUER – VICE PRESIDENT Green Plains, Inc.

Business management of specialty ingredients focused on value generation through a balance of demand creation and continuous improvement activities. Experienced in commercial negotiations, application and functional benefit development, regulatory approval process, and development of business case for large capital investments.

BREAKOUT PRESENTATIONS

PROSO MILLET: SUSTAINABLE FOOD FOR A WORLD WITH MORE PEOPLE AND LESS WATER

The world faces a growing shortage of calories as a result of population growth and changing dietary preferences. Most calories for direct consumption by humans and our livestock are derived from a small number of grain crops, viz., corn, wheat and rice. Yields of wheat and rice are plateauing and continued yield increases of corn are subject to the law of diminishing returns. Magnifying our challenge is that there is little new land available that is suitable for the production of these crops. In contrast, as the world's most water-efficient grain, proso millet can be double cropped with winter wheat in arid regions and grown on land that previously supported irrigated crops but for which water is either no longer available or limited. Millet is a drop-in substitute for corn in animal feed. Farmers can use their existing equipment for planting and harvesting millet and its supply chains are already established. It also has an extremely favorable carbon footprint. Using non-GMO next-generation breeding strategies Dryland Genetics has increased yields 10-40%; farmers' per acre profits can double at 20% higher yields. Hence, millet is poised to be the next Canola.



PATRICK SCHNABLE – CEO & CO-FOUNDER **Dryland Genetics, Inc.**

Patrick S. Schnable is the CEO and co-Founder of Ames-based Dryland Genetics, Inc. He received his BS in Agronomy from Cornell University and his PhD in Plant Breeding and Cytogenetics from Iowa State University; he conducted post-doctoral research in Molecular Genetics at the Max Planck Institute in Köln, Germany. Schnable is a serial entrepreneur and serves on the scientific advisory boards of several ag-tech companies.

He is a fellow of the American Association for the Advancement of Science, co-lead of the Genomes to Fields Initiative, the PI of the Agricultural Genomes to Phenomes Initiative (AG2PI), a past chair of the American Society of Plant Biology's Science Policy Committee, and a past chair of the Maize Genetics Executive Committee.

In addition to his role at Dryland Genetics, Dr. Schnable is a distinguished professor at Iowa State University where he holds an endowed chair and directs the Plant Sciences Institute that is fostering collaborations among plant scientists, engineers, and data scientists. Schnable's wide-ranging investigations of the maize genome have resulted in over 200 peer-reviewed publications, an h-index of 84, and over 27,000 citations.

FOOD INSECURITY PROGRAMS IN IOWA



COURTNEY LONG– FOOD SYSTEMS PROGRAM MANAGER **Iowa State University Extension and Outreach**

Courtney Long is a program manager with Iowa State University Extension and Outreach Farm, Food and Enterprise Development and Community and Economic Development. Courtney manages the Food Systems Team which includes the Community Food Systems Program, Farm to School and Early Care program, Local Food Leader and Community Food Systems certifications, as well as several additional research projects and planning efforts across the state and nation.

A LOOK AHEAD – HOW IOWA COMPANIES CAN CAPITALIZE ON THE EVOLVING ALTERNATIVE PROTEIN MARKET



SEBASTIAN BOHN – SUB MARKET LEADER

Alternative Proteins

Sebastian Bohn, Sub Market Leader of Alternative Proteins, has a passion for guiding alternative proteins producers through scale-up and process technology selection for their evolving industry. His expertise includes fermentation, cell culture, data analytics, facility integration, project execution, and process scale-up. Bohn has executed a wide range of projects in the food and beverage, industrial biotech, and life sciences industries and appreciates the challenge of designing processes and facilities that can expand and grow to meet future needs.



PABLO CORONEL, PH.D – SENIOR FELLOW OF FOOD PROCESSING AND FOOD SAFETY

Process Authority

Pablo Coronel, Ph.D., is a Senior Fellow of Food Processing and Food Safety and an FDA-recognized Process Authority. He leverages 20 years of experience as a process engineer and food scientist, especially in the development of novel technologies processing and hygienic manufacturing field, to lead clients in product and process design, food safety, and regulatory compliance development. He is a co-editor of the third edition of the Handbook of aseptic processing and packaging.



MARK LAURENZO – BUSINESS DEVELOPMENT MANAGER

Iowa Economic Development Authority (IEDA)

Mark Laurenzo is a business development manager at Iowa Economic Development Authority (IEDA). He has experience in economic development project management; site selection process; business finance packaging; strategic marketing research, planning, and execution.