



AG SOLVES

WHEN

AGGIES SOLVE





Howdy!

Welcome to Ag Solves When Aggies Solve, an event hosted by the Texas A&M Institute for Advancing Health Through Agriculture, IHA. We are excited to celebrate **agriculture as the solution** to diet-related chronic disease in a way that is environmentally sustainable and economically viable, highlighting how **Texas A&M researchers are rapidly advancing this idea** into reality. The IHA is the world's first academic institute to bring together precision nutrition, responsive agriculture, and social and behavioral healthy living research to reduce diet-related chronic disease and lower health care costs in a way that supports producers and the environment.

-Dr. Patrick Stover, IHA director

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Agenda

- 2:00pm
- 2:05pm
- 2:15pm
- 2:20pm
- 2:40pm
- 3:10pm
- 3:50pm
- 4:00pm -
- 5:00pm

Welcome
Patrick Stover, Ph.D., IHA Director

Opening Remarks
John Sharp, Chancellor Texas A&M University System

Background on the IHA
Bart Fischer, Ph.D., Co-Director, Agricultural & Food Policy Center, Research Assistant Professor

USDA Vision for Future Food Systems
Chavonda Jacobs-Young, Ph.D., under secretary for research, education, and economics and USDA's chief scientist

Keynote Address
Howarth "Howdy" Bouis, Ph.D., 2016 World Food Prize Laureate

Addressing the Challenges Facing Future Food Systems

Precision Nutrition

- *Nutrient-Sensing Ghrelin Signaling in Health and Disease: an Immunometabolic Perspective* - Yuxiang Sun, Ph.D., AgriLife Research, professor in the Department of Nutrition
- *Leveraging Precision Nutrition for a Healthier Texas* - Regan Bailey, Ph.D., IHA associate director for Precision Nutrition

Healthy Living

- *Using Altruism to Propel Behavioral Changes* - Marco Palma, Ph.D., professor, Department of Agricultural Economics, director of the Human Behavior Laboratory
- *SNAP, WIC, and Food Retail* - Beth Racine, Dr.PH., Texas A&M AgriLife Research Center director El Paso and associate department head for Extension in the Nutrition Department

Responsive Agriculture

- *Developing Specialty Grain Sorghum Hybrids for Health Food Markets* - Bill Rooney, Ph.D., regents professor and senior Agrilife faculty fellow, Department of Soil and Crop Sciences
- *Understanding the Economics of U.S. Meat Goat Markets* - Sunil Dhoubhadel, Ph.D., assistant professor, College of Agriculture and Human Sciences, Prairie View A&M University

Closing Remarks: Patrick Stover, Ph.D., IHA Director

Reception





Understanding the Challenge

Now more than ever, Americans are facing a multitude of health issues such as obesity, diabetes, cardiovascular disease and food insecurity. Additionally, the past three years have underscored major challenges for our food systems that have been bubbling beneath the surface for some time.

At the Texas A&M AgriLife Institute for Advancing Health Through Agriculture, IHA, we believe agriculture is the solution – the solution to human health, economic prosperity and environmental sustainability. The IHA is the world’s first academic institute to bring together precision nutrition, responsive agriculture, and social and behavioral research to reduce diet-related chronic disease and lower health care costs in a way that supports producers and the environment.

The Centers for Disease Control and Prevention estimates that six in 10 Americans have a chronic health condition and four in 10 Americans have two or more chronic health conditions. Today, half of all American adults suffer from diabetes or pre-diabetes, and 122 million Americans have cardiovascular disease, which alone results in around 840,000 deaths each year. At the same time, food insecurity is a major issue that has worsened as a result of the pandemic. Before the COVID-19 pandemic, one in eight Americans faced food insecurity, and now, high rates of unemployment driven by the coronavirus are expected to leave another 18 million U.S. children food insecure. These numbers add up to 40% of U.S. youth being or soon becoming food-insecure. Learn more about how Texas A&M AgriLife is taking this challenge head-on.



Guest Speakers



Chavonda Jacobs-Young

Under Secretary for Research, Education, and Economics and USDA's Chief Scientist

Dr. Chavonda Jacobs-Young serves as the Under Secretary for Research, Education, and Economics (REE), and as USDA's Chief Scientist. The REE mission area is comprised of more than 8,500 employees with a \$4 billion budget across its five component organizations including the Agricultural Research Service (ARS), Economic Research Service, National Agricultural

Statistics Service, National Institute of Food and Agriculture, and Office of the Chief Scientist. Together these organizations advance agricultural research, innovation, data, and Extension across a full range of agricultural issues including climate-smart agriculture, nutrition security, equity, and strengthening food supply chains. As Chief Scientist, Dr. Jacobs-Young advises the Secretary of Agriculture and other senior officials on scientific matters.

Prior to being appointed by President Biden to serve as the REE Under Secretary, Dr. Jacobs-Young was the ARS Administrator for 8 years. She also served in several other key leadership positions at USDA over the past 20 years.

She holds M.S. and Ph.D. degrees in Wood and Paper Science and a B.S. degree in Pulp and Paper Science and Technology from North Carolina State University.



Dr. Howarth "Howdy" Bouis

2016 World Food Prize Laureate

As director of HarvestPlus (2003-2016), Howarth Bouis coordinated an interdisciplinary, multi-institutional effort to develop, test, and disseminate micronutrient-rich staple food crops to reduce mineral and vitamin deficiencies among malnourished populations in developing countries. Since 1993, he has sought to promote biofortification globally.

In 2016, Bouis was awarded the World Food Prize, in recognition of the accomplishments of the HarvestPlus team. Dr. Bouis received his B.A. in economics from Stanford University and his M.A. and Ph.D. from Stanford University's Food Research Institute, a program in agricultural economics. His past research at the International Food Policy Research Institute (he joined IFPRI in 1982 as post-doctoral fellow) focused on how economic factors affect food demand and nutrition outcomes.

During 2018 and until June 30, 2019, Dr. Bouis served as the interim CEO of HarvestPlus. He now resides in the Philippines, undertaking activities as HarvestPlus Founding Director; Emeritus Fellow, IFPRI; Senior Fellow, Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA); and Guest Scientist, International Rice Research Institute (IRRI). In addition, he chairs the Board of Trustees of the Micronutrient Forum. In 2017, he was awarded the degree of Doctor of Science, Honoris Causa, by the University of Greenwich.

Prior to beginning his graduate studies, Bouis worked for three years (1972-75) as a volunteer in the Philippines with Volunteers in Asia.

Guest Speakers



More information
on the lightning talks



Regan Bailey, Ph.D.
*IHA associate director for
Precision Nutrition*

"Leveraging Precision Nutrition
for a Healthier Texas"



Marco Palma, Ph.D.
*professor, Department of Agricultural
Economics, director of the Human
Behavior Laboratory*

"Using Altruism to Propel
Behavioral Changes"



Sunil Dhoubhadel, Ph.D.
*Assistant professor of AgriBusiness, College of
Agriculture and Human Sciences,
Prairie View A&M University*

"Understanding the Economics
of U.S. Meat Goat Markets"



Yuxiang Sun, Ph.D.
*AgriLife Research, professor in the
Department of Nutrition*

"Nutrient-Sensing Ghrelin Signaling in
Health and Disease: an
Immunometabolic Perspective"



Beth Racine, Dr.PH.
*director of Texas A&M AgriLife Research Center El Paso
and associate department head for
Extension in the Nutrition Department*

"SNAP, WIC, and Food Retail"



William Rooney, Ph.D.
*regents professor and senior Agrilife
faculty fellow, Department of Soil and
Crop Sciences*

"Developing Specialty Grain
Sorghum Hybrids
for Health Food Markets"



IHA Leadership



Read IHA Leadership
Bios and CVs



Patrick Stover
Ph.D.
Director

A portrait of Patrick Stover, a middle-aged man with short grey hair, wearing a dark blue suit jacket, a white shirt, and a green and blue patterned tie. He is smiling slightly against a dark blue background.

Elizabeth Parker
D.V.M.
*Interim Associate
Director of
Responsive
Agriculture*

A portrait of Elizabeth Parker, a woman with long blonde hair, wearing a black blazer over a light blue top. She is smiling against a dark blue background.

Regan Bailey
Ph.D., M.P.H., R.D.
*Associate Director of
Precision Nutrition*

A portrait of Regan Bailey, a woman with shoulder-length brown hair, wearing a bright blue top. She is smiling against a dark blue background.

Rebecca Seguin-Fowler
Ph.D., R.D.N.,
L.D., C.S.C.S.
*Associate Director
of Healthy Living*

A portrait of Rebecca Seguin-Fowler, a woman with long dark hair, wearing a dark green top. She is smiling against a dark blue background.

Three Focus Areas



Precision Nutrition

Precision nutrition, a nascent science, is a comprehensive and dynamic approach to understanding nutrition needs in order to reduce chronic disease based on individual differences including genetics, epigenetics, age, sex, disease status, sleep patterns and other factors.



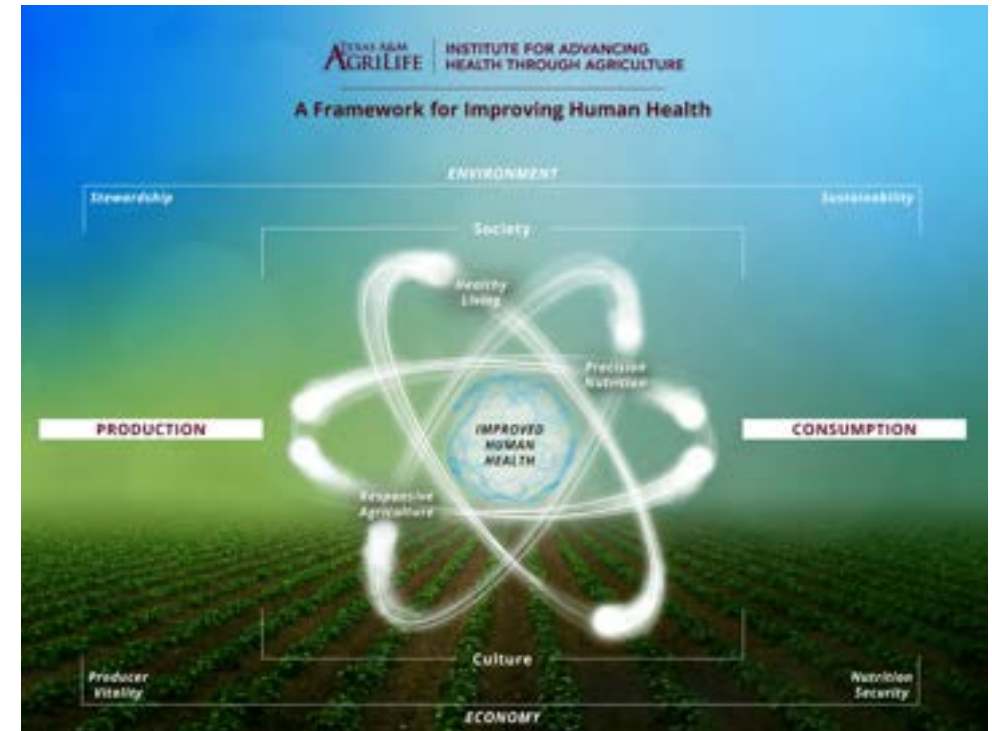
Responsive Agriculture

Responsive agriculture is a science-based, dynamic approach to production agriculture that seeks to respond to the needs of human health, environmental sustainability and economic sustainability for the benefit of producers and consumers.



Healthy Living

Healthy living research is the development, evaluation and dissemination of community-engaged health promotion and chronic disease prevention intervention programs that integrate individual, sociocultural, environmental and policy/system-level factors.



Associate Members



*More information on our
Associate Members*



Dr. William Rooney
Enhancing the health benefits of specialty grain sorghum hybrids for the U.S. food industry



Dr. Dmitry Kurouski
Raman-based sensing of human and plant health



Dr. Katie Lynn Lewis
Enhancing health on the Texas High Plains with sustainable and resilient cropping systems that mitigate wind erosion and dust control



Dr. Bruce McCarl
Agriculture sector analysis of environmental developments and nutritional initiatives



Dr. Bhimu Patil
Green N-Carbon dots to develop climate resilient tomatoes with enhanced health promoting bioactive compounds



Dr. Yuxiang Sun
Ghrelin – a unique biomarker for nutritional state and inflamm-aging



Dr. Marco Palma
Implementing nutritional interventions to enhance compliance and adoption of healthier lifestyles



Dr. Lexi L. MacMillian Uribe
Produce Rx: Increasing fruit and vegetable intake and improving cardiometabolic health indicators among urban, low-income adults and caregiver-toddler dyads

Associate Members



More information on our
Associate Members



Dr. Chad Rethorst
Strong Hearts, Healthy Communities (SHHC) Digital Intervention - SHHC Urban Adaptation



Dr. Elizabeth Racine
Precision Nutrition research in adolescent females



Dr. Jeffery Tomberlin
Edible insects and health



Dr. Robert Chapkin
Human milk Oligosaccharides in gut health



Dr. Jacob S. Szeszulski
Optimizing the effectiveness and impact of the healthy school recognized campus and strong teens for healthy schools change club programs



Dr. Joseph Awika
Prediction of microbiota-dependent effects of fine-scale food composition on human health using Big Data and AI/ML approaches



Dr. Matthew Taylor
Microbial Food Safety



Join Us

Affiliate Members

The IHA invites researchers to support its mission as associate and affiliate members. Affiliate members have a one-year appointment, with some being granted seed funding based on their research and its mutually beneficial qualities. Collaboration with one or more of our three focus areas was strongly encouraged for both types of memberships.

If you are Interested In learning more about becoming an IHA Affiliate Member, please fill out the form:



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Quarterly Newsletter

*First edition will be published
December 2022*



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