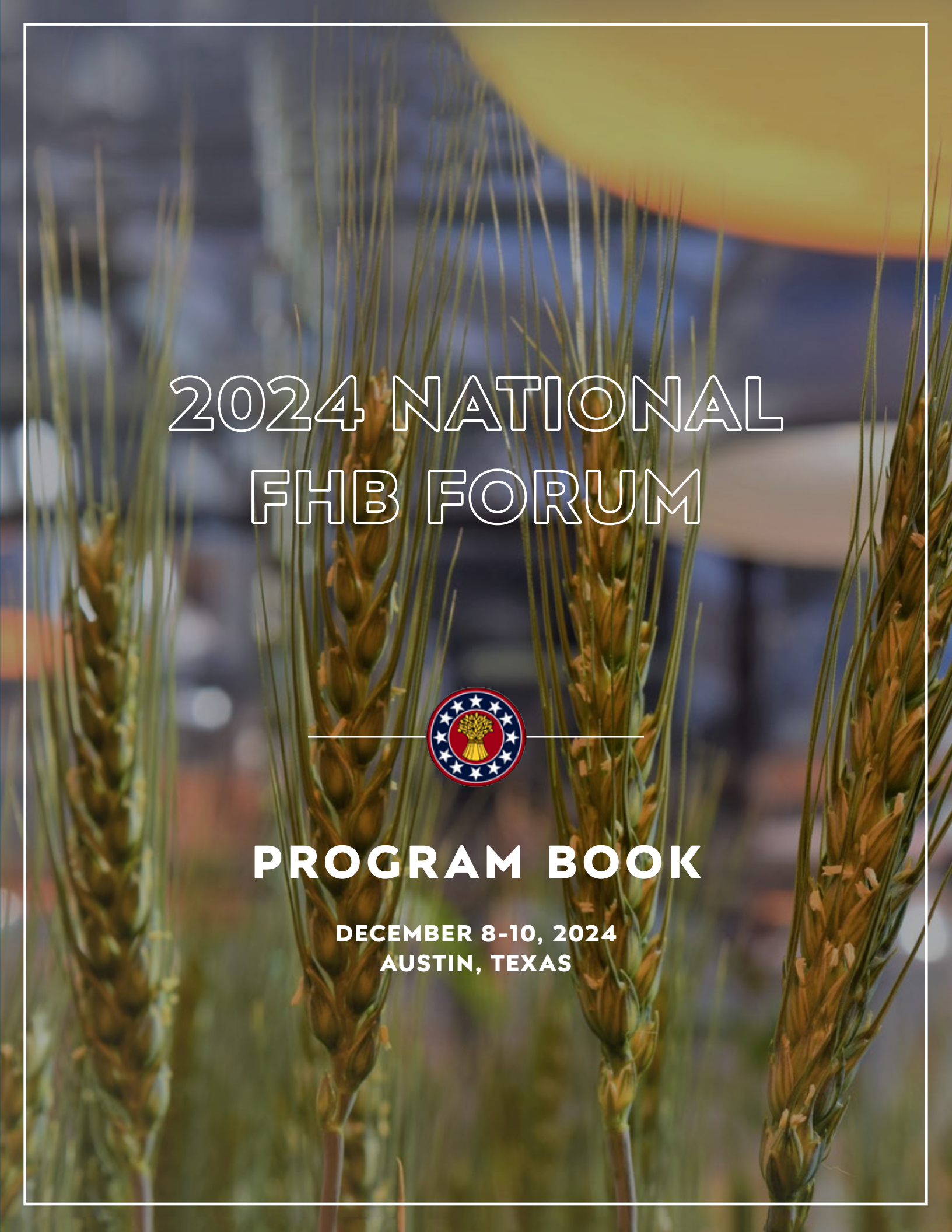

2024 NATIONAL FHB FORUM

PROGRAM BOOK

DECEMBER 8-10, 2024
AUSTIN, TEXAS

WELCOME

2024 NATIONAL FHB FORUM

The USWBSI is dedicated to offering this valuable opportunity for the FHB community to come together to foster dialogue and advance scientific knowledge on the latest insights regarding the impact of Fusarium head blight (scab) and deoxynivalenol (DON) on wheat and barley.

USWBSI 2024 FORUM ORGANIZING COMMITTEE (FOC)

Co-Chairs

Esten Mason, Colorado State University and Lisa Vaillancourt, University of Kentucky

Members

FHB Management

Kelsey Andersen Onofre, Kansas State University and Christina Cowger, USDA-ARS

Food Safety & Toxicology

Dave Kendra, Cibus and Mark Busman, USDA-ARS

Gene Discovery and Engineering Resistance

Nidhi Rawat, University of Maryland and Matt Helm, USDA-ARS

Pathogen Biology and Genetics

Hye-Seon Kim, USDA-ARS and Mitch Elmore, USDA-ARS

Variety Development and Host Resistance

Jason Fiedler, USDA-ARS and Jessica Rutkoski, University of Illinois

QUICK TIPS

- Your **name badge** serves as your ticket for the following food functions, make sure to wear it at all times: Sunday reception/dinner, Monday lunch and reception, as well as all breaks and breakfast on Monday and Tuesday morning.
- A small meeting room is open for use during the Forum, check in at registration for availability.
- The USWBSI is dedicated to providing a harassment-free meeting experience, all attendees are expected to comply with the USWBSI Code of Conduct (pg. 17) or with QR code.
- Photos will be taken during the Forum, by registering you agree to allow USWBSI to use your photo in various publications.
- Check out the Virtual Poster Room in addition to the onsite posters with QR code.
- An Abstract Viewer with all presentations and posters is available with QR code.
- The latest Attendee Registration List is available at the registration desk or can be accessed with QR code.
- Follow @USWBSI on X or LinkedIn; for posts about the NFHB Forum, use the hashtag **#nfhbforum24.**
- In case of emergency, please notify USWBSI's Director of Operations Michelle Bjerkness (612.990.5032).
- The 2024 National FHB Forum is being held at the AT&T Hotel & Conference Center in Austin, TX.

RESEARCH AREA ACRONYMS

The following are used throughout the program to reference areas of focus for presentations and posters.

FST - Food Safety & Toxicology
GDER - Gene Discovery and Engineering Resistance
MGMT - FHB Management
PBG - Pathogen Biology and Genetics
VDHR - Variety Development and Host Resistance

Quick Mobile Access QR Codes

USWBSI Code of Conduct, pg. 17

Virtual Poster Room

Online Abstract Viewer

2024 Attendee Registration List

2024 SPONSORS ::

THANK YOU

The NFHB Forum is made possible through funding and generous contributions from:

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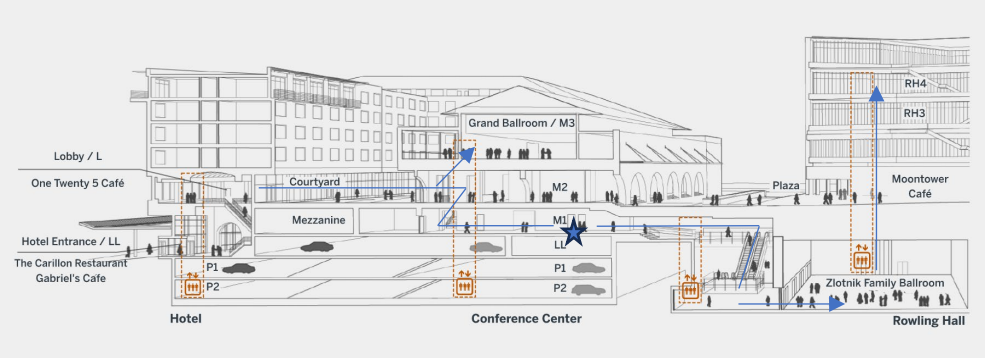
U. S. Wheat & Barley Scab Initiative (USWBSI)
Networking & Facilitation Office (NFO) | nfo@scabusa.org
495 Borlaug Hall | 1991 Upper Buford Circle | St. Paul, MN 55108 | scabusa.org | 517.290.5023

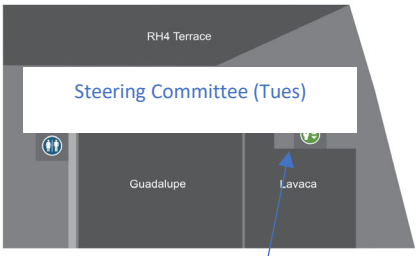
The USWBSI is a national multi-disciplinary and multi-institutional research consortium whose goal is to develop effective control measures that minimize the threat of Fusarium head blight (scab), including the production of mycotoxins, for producers, processors and consumers of wheat and barley. The USWBSI's more than $8.6 million annual budget comes from Federal funds appropriated through the USDA-ARS and is distributed to research projects in more than 30 states.

2024 SCHEDULE AT A GLANCE

	Sunday December 8, 2024	Monday December 9, 2024	Tuesday December 10, 2024
7:00AM		**Breakthrough Breakfast** Tejas Conference Dining	**Breakthrough Breakfast** Tejas Conference Dining
8:30AM		**Breakout Meetings** (See details on pg 7)	
9:00AM	**Registration Opens** Level M1 Lobby		**General Session 5** Zlotnik Ballroom 4/5/6
10:00AM	Poster Author Set-up Zlotnik Ballroom 3	Break	Break
		Breakout Meetings (See details on pg 7)	**General Session 6** Zlotnik Ballroom 4/5/6
		Attendee Lunch Tejas Conference Dining	**Closing Session** NFHB Forum Adjourns @ Noon
1:00PM	**Opening Session** Zlotnik Ballroom 4/5/6	**Breakout Meetings** (See details on pg 8)	**USWBSI Steering Committee Meeting** Lavaca & Guadalupe Classrooms (Level RH4)
1:45PM	**General Session 1** Zlotnik Ballroom 4/5/6	Break	
		General Session 3 Zlotnik Ballroom 4/5/6	
	Break	Poster Competition Finalists	**National Wheat Improvement Committee Meeting** (3-5:30PM, continues Wed until Noon) Classroom 103
3:40PM	**General Session 2** Zlotnik Ballroom 4/5/6	Break	
		General Session 4 Zlotnik Ballroom 4/5/6	
	Poster Competition Finalists	Flash & Dash	
5:30PM	**Poster Session/Reception** *Even # Poster Authors Present* Zlotnik Ballroom 3	**Poster Session/Reception** *Odd # Poster Authors Present and Poster Competition Awardees* Zlotnik Ballroom 3	**AMBA Reception** *Connecting Researchers & Industry (5-6:30PM)* Lavaca Classroom (Level RH4)
6:30PM	**Dinner** Grand Ballroom (Level M3)		
		Open	
8:15PM	**Early Career Game Night Social** Conference Room 301		
9:15 PM			

FLOORPLAN ::
AT&T HOTEL AND CONFERENCE CENTER

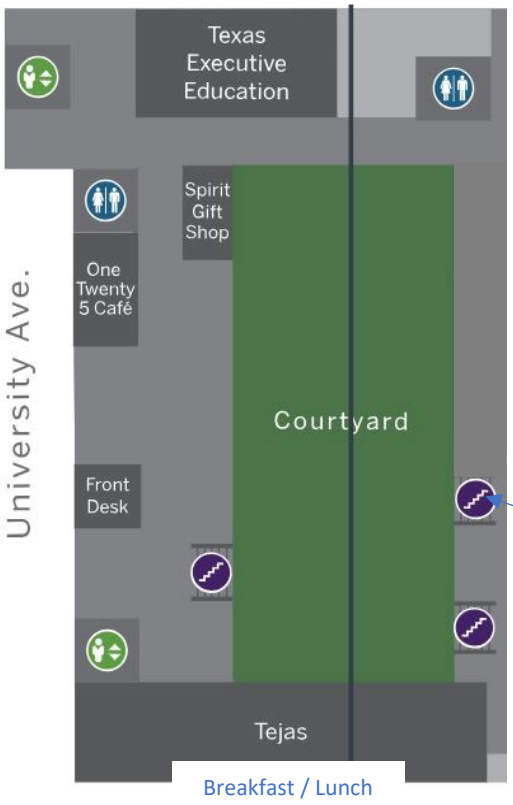




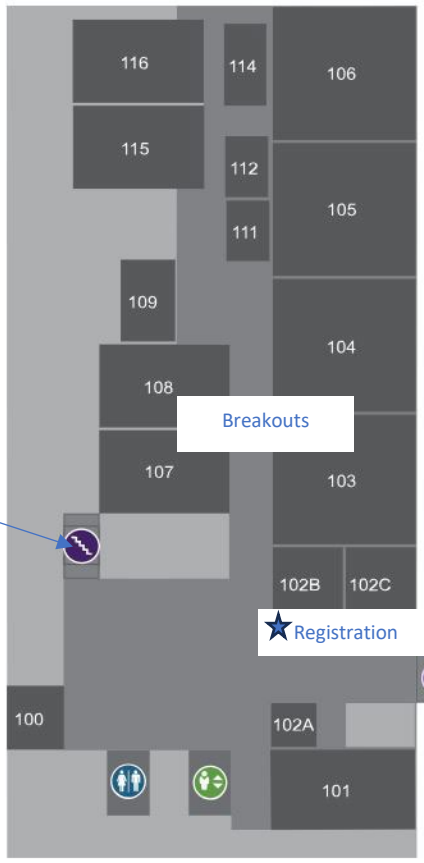
Level RH4

(access from elevator in Zlotnik Pre-function)

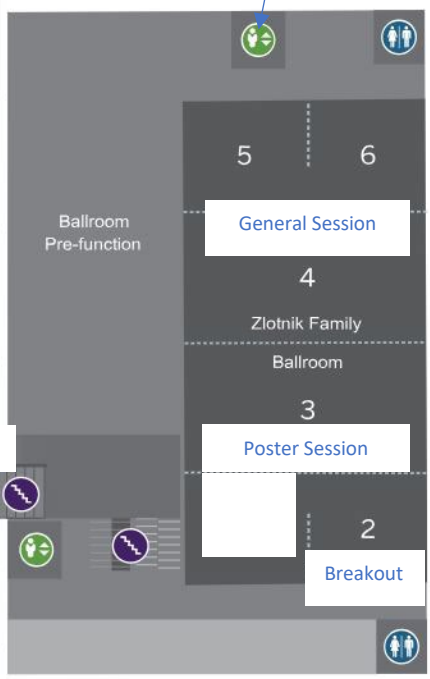
Courtyard/Level M2



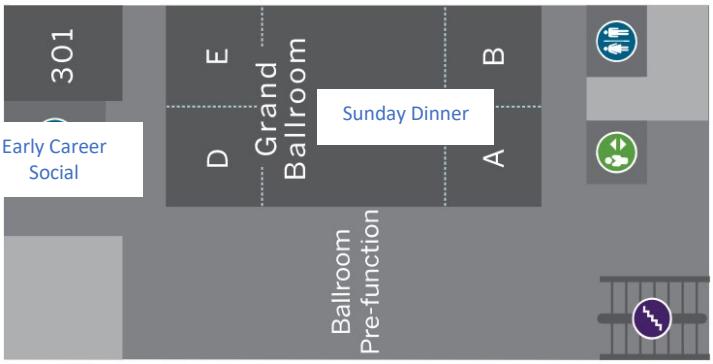
Level M1



Lower Level



Level M3



2024 PROGRAM ::

SUNDAY, DECEMBER 8

9:00AM-5:30PM
Registration Open
Level M1 Lobby

10:00AM-12:30PM
Poster Author Set-up
Zlotnik Ballroom 3

Abstract Viewing
Abstracts for all of the presentations and posters are available on the NFHB Forum Abstract Viewing page at scabusa.org/scripts/forum/abstracts.php?fy=2024

For quick mobile access to all the abstracts try this Online Abstract QR code

1:00PM
Opening Session
Zlotnik Ballroom 4/5/6 | Moderators: Esten Mason & Lisa Vaillancourt, FOC Co-Chairs

1:00PM :: Welcome & Overview

Ruth Dill-Macky, USWBSI Researcher Co-Chair, University of Minnesota

1:05PM :: Keynote Presentation

Gary Bergstrom, Professor Emeritus, Cornell University
A Field Pathologist's Insights on Fusarium Head Blight: Four Decades and Still Learning

1:40PM :: Industry Perspective

James Burgum, CEO, The Arthur Companies
Supply Chain Solutions, Vision for the Future

2:00PM
General Session 1 USDA-ARS Intramural Research Highlights
Zlotnik Ballroom 4/5/6 | Moderators: Mitch Elmore & Oswald Crasta, USDA-ARS

2:07PM :: VDHR/GDER

Mary Guttieri, Research Plant Geneticist, USDA-ARS
Germplasm Development for FHB Resistance in USDA-ARS

2:24PM :: FST

Mark Busman, Research Chemist, USDA-ARS
Prevention, Mitigation and Detection of Mycotoxins in Wheat and Barley

2:41PM :: VDHR/GDER

Andy Read, Research Geneticist, USDA-ARS
Thirty Years of the Hard Red Spring Wheat Uniform Regional Scab Nursery

2:48PM :: PBG

Mickey Drott, Research Plant Pathologist, USDA-ARS
The Pan-secondary Metabolome of *Fusarium graminearum* Points to New Mycotoxins and Virulence Factors

2:55PM :: Panel
Q&A with all the USDA-ARS Intramural Presenters

3:15PM
Networking Break
Zlotnik Pre-function Area

3:35PM
General Session 2
Zlotnik Ballroom 4/5/6 | Moderator: Mark Busman, FOC FST Representative

3:40PM :: FST

Kai Zhang, Research Chemist, U.S. Food and Drug Administration
Challenges and Future State of Mycotoxin Analysis from a Regulatory Perspective

4:15PM :: VDHR

Lily Tamburic-Ilincic, Wheat Research Scientist, University of Guelph
Breeding Winter Wheat for Fusarium Head Blight Resistance in Canada

4:35PM
Poster Competition Session – Graduate Student Finalists
Zlotnik Ballroom 4/5/6 | Moderator: Mark Busman, FOC FST Representative
Graduate Student Poster Competition finalists present for final judging round.

5:15PM
Poster Session & Reception
Zlotnik Ballroom 3
5:30-6:15PM
Even Numbered Posters
Authors Present to Answer Questions
(See pages 11-15 for Poster Author details.)

Special Thanks to our Sponsors for the Reception Beer Donations

6:30-8:00PM
National FHB Forum Dinner
Grand Ballroom (Level M3)

Special Thanks to our Dinner Sponsor

8:15-9:45PM
Early Career Game Night Social (GPFHB)
Conference Room 301 (Level M3) | Organizer: Bhavit Chhabra
The Graduate Students and Post-Docs in FHB (GPFHB) invite all post-docs and graduate students to meet your peers, learn more about GPFHB efforts, and play fun interactive games to get to know your fellow peers while you socialize and enjoy hot cocoa and cider along with treats.

2024 PROGRAM ::

Monday, December 9

7:00-9:00AM

Breakfast

Tejas Conference Dining

New! Breakthrough Breakfasts – New this year, join your colleagues for breakfast (included in registration) and dive into open discussions on topics suggested by attendees.

8:00AM-5:30PM

Registration Open

Level M1 Lobby

8:00AM-5:00PM

Poster Room Open for Viewing

Zlotnik Ballroom 3

Research Area Acronyms

FST - Food Safety & Toxicology
GDER - Gene Discovery and Engineering Resistance
MGMT - FHB Management
PBG - Pathogen Biology and Genetics
VDHR - Variety Development and Host Resistance

8:30AM-1:30PM

USWBSI Breakout Sessions

All attendees are welcome to attend, all classrooms are on Level M1.

MONDAY	Classroom 101	Zlotnik 2	Classroom 103	Classroom 104	Classroom 107	Classroom 108	Boardroom 100
8:30AM	8:30-10:00AM **USWBSI T3 Breeders DB Workshop** Facilitator: Jean-Luc Jannink	8:30-10:00AM **FHB MGMT Breakout** Chair: Kaitlyn Bissonnette	8:30-10:00AM **GDER Breakout** Chair: Harold Trick	8:30-10:00AM **PBG Breakout** Chair: Lisa Vaillancourt	8:30-10:00AM **FST Breakout** Chair: Mark Busman	8:30-10:00AM **DUR-CP Breakout** Chair: Andrew Friskop	Small Open Meeting Room (Sign-up for times at registration)
10:00AM	**Break** Service Location: Level M1 Hallway/Lobby						
10:15AM	10:15-11:45AM **BAR-CP Breakout** Chair: Tom Baldwin	10:15-11:45AM **IM-CP Breakout** Co-Chairs: Erick DeWolf & Kelsey Andersen Onofre	10:15-11:45AM **HWW-CP Breakout** Chair: Sunish Sehgal	10:15-11:45AM **VDHR-SPR CP Breakout** Chair: Jason Cook	10:15-11:45AM **VDHR-NWW CP Breakout** Chair: Clay Sneller	10:15-11:45AM **VDHR-SWW CP Breakout** Chair: Rick Boyles	Small Open Meeting Room (Sign-up for times at registration)

MONDAY	Classroom 101	Zlotnik 2	Classroom 103	Classroom 104	Classroom 107	Classroom 108	Boardroom 100
11:45AM	**Buffet Lunch for All Attendees** Service Location: Tejas Conference Dining						
12:30PM	12:30-1:30PM **Nuts & Bolts Session** Presenters: B. Zargaran and Y. Dong *Session provides an introduction into the technical basics of FHB inoculation and DON analysis for grain samples.**		12:30-1:30PM **USDA Eastern Regional Small Grains Genotyping Lab Breakout** Chair: G. Brown-Guedira	12:30-1:30PM **USDA North Central Small Grains Genotyping Lab Breakout** Chair: Jason Fiedler	12:30-1:30PM **USDA Central Small Grains Genotyping Lab Breakout** Chair: Guihua Bai	12:30-1:30PM **USDA Western-Pullman Regional Small Grains Genotyping Lab Breakout** Chair: Deven See	Small Open Meeting Room (Sign-up for times at registration)
1:30PM	Return to General Session, starts at 1:45PM						

** This breakout is targeted for graduate students, post docs, and technicians, but anyone interested is welcome to attend.*

1:45PM

General Session 3

Zlotnik Ballroom 4/5/6 | Moderators: Hye-Seon Kim & Mitch Elmore, FOC PBG Representatives

1:50PM :: PBG

Frances Trail, Mycology Professor, and **Iffa Gaffoor**, Research Associate, Michigan State University

Time Well-Spent: 28 Years in the Company of the Head Blight Fungus

2:25PM :: GDER

Gopal Subramaniam, Research Scientist, Agriculture and Agri-Food Canada and Adjunct Professor, University of Toronto

Proximity-dependent Biotinylation of Proteins – A Versatile Tool to Identify Effectors and Their Potential Targets in Plants

2:45 PM

Poster Competition Session – Post-Doc Finalists

Zlotnik Ballroom 4/5/6 | Moderators: Hye-Seon Kim & Mitch Elmore, FOC PBG Representatives

Post-Doc Poster Competition finalists present for final judging round (awardees announced at 5:05PM).

3:20PM
Networking Break
Zlotnik Pre-function Area

3:40PM
General Session 4
Zlotnik Ballroom 4/5/6 | Moderators: Kelsey Andersen Onofre & Christina Cowger, FOC MGMT Representatives

3:45PM :: MGMT

Franz Berthiller, Associate Professor, Institute of Bioanalytics and Agro-Metabolomics, BOKU University
Trichothecenes in Europe: An Update

4:20PM :: VDHR

David Van Sanford, Professor, University of Kentucky
Breeding Scab Resistant Wheat, Just South of the Mason-Dixon Line

4:40PM
Flash & Dash Session
Zlotnik Ballroom 4/5/6 | Moderators: Kelsey Andersen Onofre & Christina Cowger, FOC MGMT Representatives
Brief poster presentation highlights by a selection of Graduate Students and Post-Docs.

5:05PM
Announcement of the Poster Competition Awardees
Zlotnik Ballroom 4/5/6| Moderator: Richard Magnusson
The 2024 National FHB Forum Poster Competition Graduate Student and Post-Doc Awards will be presented.

5:15PM
Poster Session & Reception
Zlotnik Ballroom 3

5:30-6:15PM
Odd Numbered Posters & Poster Competition Awardees
Authors Present to Answer Questions
(See pages 11-15 for Poster Author details.)

6:15-6:45PM
Reception continues

Special Thanks to our Sponsors for the Reception Beer Donations

7:00PM
Evening on your own to enjoy Austin!
Restaurant and music venue suggestions available at registration.

Tuesday, December 10

7:00-9:00AM

Breakfast

Tejas Conference Dining

New! Breakthrough Breakfasts – Join your colleagues for breakfast (included in registration) and dive into open discussions on a different selection of topics suggested by attendees.

8:00AM-12:00PM

Registration Open

Level M1 Lobby

8:00AM-10:00AM

Poster Room Open for Viewing

Zlotnik Ballroom 3

9:00AM

General Session 5

Zlotnik Ballroom 4/5/6 | Moderators: Jason Fiedler & Jessica Rutkoski, FOC VDHR Representatives

9:05AM :: VDHR

Gina Brown-Guedira, Research Geneticist, USDA-ARS

Genotyping to Improve Scab Resistance

9:40AM :: GDER

Shyam Solanki, Assistant Professor, South Dakota State University

Mapping the Spatial Expression Atlas of Wheat's Cellular Defense Against FHB

10:00AM :: PBG

Todd Naumann, Research Chemist, USDA-ARS

Discovery of IssA, a Bacterial Protease that Cleaves flg22 to Allow Rhizosphere Colonization

10:20AM

Networking Break / Poster Authors Remove Posters

Zlotnik Pre-function Area

10:45AM

General Session 6

Zlotnik Ballroom 4/5/6 | Moderators: Nidhi Rawat & Matt Helm, FOC GDER Representatives

10:50AM :: GDER

Rong Di, Assistant Professor, Rutgers University

Barley Genetic Engineering Facility for FHB Research Community

11:10AM :: VDHR

Jim Anderson, Professor, University of Minnesota

Breeding FHB Resistant Hard Red Spring Wheat for the Upper Midwest

11:30AM :: MGMT

Rob Proulx, Extension Agriculture Technology Systems Specialist, North Dakota State University

Spray Application Technology for FHB Suppression with Fungicides

11:50AM
Closing Session
Zlotnik Ballroom 4/5/6

11:50AM :: USWBSI Closing Remarks

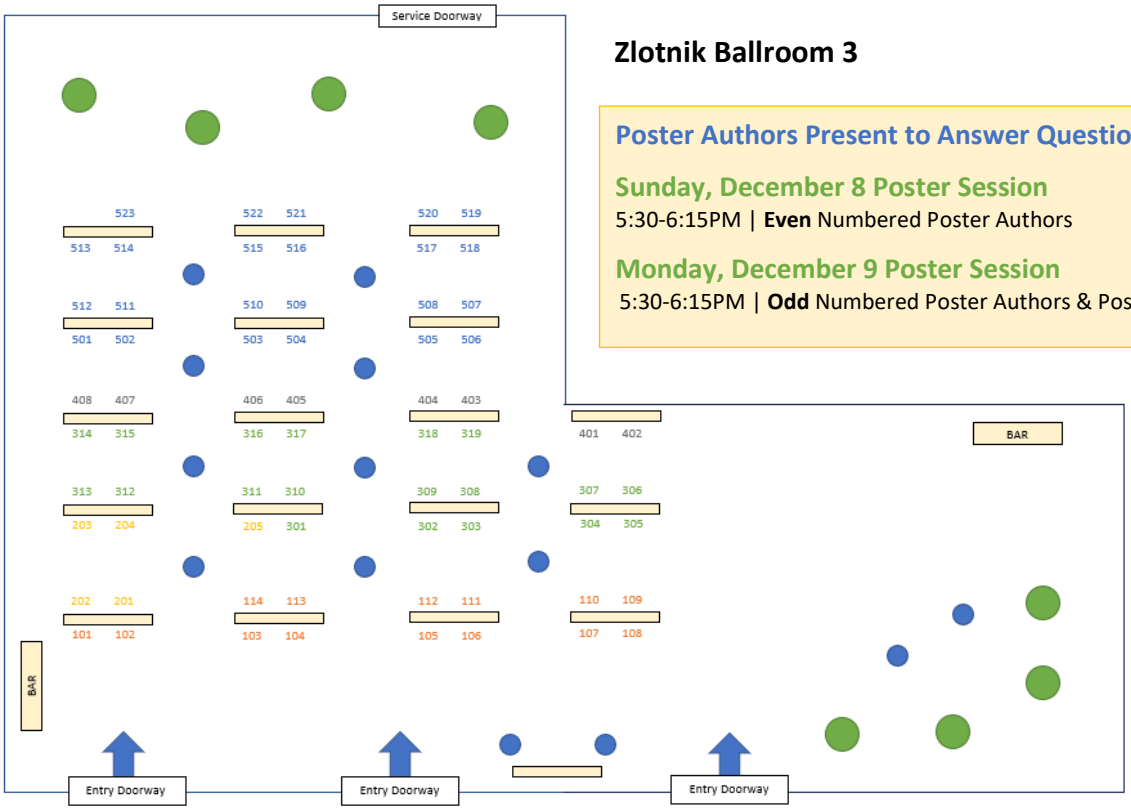
Richard Magnusson, USWBSI
Grower Co-Chair, Magnusson Farms

12:00PM
Meeting Adjourns

12:15-4:30PM
USWBSI Steering Committee Luncheon & Meeting (invitation only)
Lavaca and Guadalupe Classrooms (Level RH4, take elevators nearest Zlotnik Ballroom 5/6 up to meeting rooms.)

3:00-5:30PM (continues on Wednesday, December 11, 8:30AM-12:00PM)
National Wheat Improvement Committee (NWIC) Meeting
Classroom 103

POSTER AUTHOR SESSIONS :: Sunday & Monday



Zlotnik Ballroom 3

Poster Authors Present to Answer Questions

Sunday, December 8 Poster Session
5:30-6:15PM | **Even** Numbered Poster Authors

Monday, December 9 Poster Session
5:30-6:15PM | **Odd** Numbered Poster Authors & Poster Competition Awardees

Onsite Viewing
The Poster Session Room is open Sunday-Monday during the Forum in Zlotnik Ballroom 3.

Virtual Viewing
The Virtual Poster Room is available in tandem with the live Poster Sessions.

For quick mobile access to all the virtual posters try this QR code

Special Thanks to the 2024 Poster Competition Sponsor: NORTH AMERICAN MILLERS ASSOCIATION

POSTER PRESENTERS ::

Poster #	Category	Presenter Name	Institution	Title
101	FHB Management (MGMT)	Abdullah, Sidrat	University of Idaho	University of Idaho Uniform Fungicide Trial Results for Control of Fusarium Head Blight in 2024
102		Acharya, Reecha	University of Minnesota	Quantifying the Benefits of Two-Row, Naked, and Fall-Sown Barley on Reducing Deoxynivalenol in Grain
103		Ajayi-Moses, Oluwatayo	North Dakota State University	Identifying Differentially Expressed Genes Influencing FHB Resistance in Hard Red Spring Wheat
104		Andersen Onofre, Kelsey	Kansas State University	Evaluating the Influence of Seeding Rates when Integrated with Fungicide Applications and Genetic Resistance on Fusarium Head Blight Control in Kansas
105		Bakare, Moshood	Virginia Tech	Evaluating the Impact of Weather Variables on FHB Infection within Virginia Wheat Germplasm
106		Debacker Moura, Raissa	Kansas State University	Dual Fungicide Applications for Fusarium Head Blight Management in Hard Red Winter Wheat: a Three-Year Summary of Uniform Fungicide Trial Results from Kansas
107		Hansen, Bryan	North Dakota State University	Summary of Hard Red Spring Wheat Uniform Fungicide Trials (UFT) in North Dakota from 2022 to 2024
108		Kikway, Isaack	The Ohio State University	Fusarium Head Blight Management Coordinated Project: Integrated Management Trials 2024
109		Kikway, Isaack	The Ohio State University	Fusarium Head Blight Management Coordinated Project: Uniform Fungicide Trials 2024
110		Mohammadi, Mohsen	Purdue University	Exogenous dsRNA Coupled with Graphene Quantum Dots Targeting *Fusarium graminearum* Genes Attenuates Fusarium Head Blight Disease in Wheat
111		Ncube, Edson	North Dakota State University	USWBSI Uniform Fungicide Efficacy Trial for Management of Fusarium Head Blight in Irrigated Durum in North Dakota
112		Shittu, Olanrewaju	Penn State University	Assessing Fusarium Head Blight Risk and Disease Impact: Comparative Analysis of On-Farm and Research Station Trials on FHB Index and DON
113		Singla, Shiv	University of Nebraska-Lincoln	Efficacy of Fungicide Applications for Fusarium Head Blight Control Across Barley Varieties
114		Yabwalo, Dalitso	South Dakota State University	2024 Fusarium Head Blight Management: Efficacy of Various Application Regimen in South Dakota Spring and Winter Wheats
201	Food Safety & Toxicology (FST)	Hay, William	USDA-ARS	Controlling *Fusarium* Contamination of Malting Barley with *Brassicaceae* Seed Meal Volatiles
202		Kunapareddy, Anil	North Dakota State University	Photosensitization for the Inactivation of *Fusarium* spp. In Vitro and in Wheat
203		Li, Qian	North Dakota State University	*Fusarium* and Barley Interaction: Impact on Malt Quality and Soluble Arabinoxylans Characteristics
204		McMullan, Lola	Virginia Tech	Calli in Focus: A Novel Lens for Mycotoxin Detection
205		Moon, Yejune	North Dakota State University	Transformation of Deoxynivalenol to Deoxynivalenol-3-Glucoside and Gene Expression during Malting

Poster #	Category	Presenter Name	Institution	Title
301	Gene Discovery & Engineering Resistance (GDER)	Bethke, Gerit	University of Minnesota	Understanding Substrate Specificity and Function of the Barley UDP-Glucosyltransferase UGT13248 During Fusarium Head Blight
302		Chhabra, Bhavit	University of Maryland	Discovery and Mapping of FHB-resistant Mutations in a Susceptible Wheat Variety 'Jagger'
303		Hao, Guixia	USDA-ARS	Characterization of a Mycotoxin Trichothecene Transporter in *Arabidopsis thaliana*
304		Islam, Md Ashraful	University of North Texas	Loss of *NPR3* and *NPR4* Function Enhances Resistance to the Fungal Pathogen *Fusarium graminearum* in Arabidopsis and Wheat
305		Jaiswal, Namrata	USDA-ARS	The *Fusarium graminearum* Effector Protease FgTPP1 Suppresses Immune Responses and Facilitates Fusarium Head Blight Disease
306		Li, Wanlong	South Dakota State University	Marker-Free Transfer of *Fhb7* to Barley
307		Mahat, Janaki	Montana State University	Genetic Dissection of Mycotoxin Variation in Barley
308		McLaughlin, John	Rutgers University	Exosomes and the Apoplast Proteome of Barley Reproductive Tissue in Response to *Fusarium graminearum* Infection
309		McLaughlin, John	Rutgers University	Chloroplast Damage and Variable Stress Responses to Trichothecenes in Cereals: Implications for Fusarium Head Blight
310		Mittal, Isha	University of North Texas	Differential Transcriptomics Identifies the Key Wheat Genes and in Planta-Expressed Fungal Genes Associated with *Lpx3*-Conferred Resistance to Fusarium Head Blight
311		Nesbit, Jamie	University of Minnesota	Analysis of a Wild Barley Introgression Line Population for Resistance to Fusarium Head Blight and Deoxynivalenol Accumulation
312		O'Mara, Sean	University of Minnesota	A Forward Genetics Approach to Identifying Novel Sources of FHB Resistance and Susceptibility in Wheat and Barley
313		Poursafar, Alireza	North Dakota State University	Identification and Characterization of Fusarium Head Blight Susceptibility Genes in Durum Wheat
314		Safar, Shahed	North Dakota State University	Targeted Mutagenesis of Two *Fhb7* Alleles in Common Wheat through Wide Hybridization with Transgenic Maize Expressing Cas9 and Single guide RNA
315		Thapa, Sittal	North Dakota State University	Transcriptomic Study to Reveal Genes Governing Fusarium Head Blight Resistance in Contrasting Durum Genotypes
316		Xiang, Youhuang	Indiana University	A *Fusarium graminearum* Effector FgTPP1 Interacts with Stromal Chaperone HSP70 and Suppresses Plant Immunity
317		Xu, Yuzhou	Kansas State University	Map-Based Cloning of *Qfhb.Hwwg-2ds* for Fusarium Head Blight (FHB) Resistance in Hard Winter Wheat
318		Yang, Shengming	USDA-ARS	Application of Wheat Resistance Genes for FHB Control in Barley
319		Zhong, Shaobin	North Dakota State University	Which Gene is Responsible for the *Fhb1*-Mediated Resistance to Fusarium Head Blight in Wheat-*TaPFT* or *TaHRC*?

Poster #	Category	Presenter Name	Institution	Title
401	Pathogen Biology & Genetics (PBG)	Goyal, Simran	University of Kentucky	Recombination Analysis Reveals 3ADON Does Not Confer Higher Levels of Aggressiveness or Toxigenicity than 15ADON
402		Haley, Olivia	USDA-ARS	Fusarium Protein Toolkit: a Resource for Structural and Variant Analysis of *Fusarium* Species
403		Hao, Guixia	USDA-ARS	Fungal Endophyte *Sarocladium zeae* Delivers dsRNA to Suppress *Fusarium graminearum* Expressing GFP
404		Infante, Rubylyn	USDA-ARS	Chromosome-Scale Assembly of Wheat Cultivar Sumai 3, the Major Germplasm Source for Fusarium Head Blight Resistance
405		Rhoades, Nicholas	USDA-ARS	*Fusarium graminearum* Effector FgRGAE is Critical for Fungal Initial Infection in Wheat and Barley
406		Singh, Lovepreet	University of Minnesota	Rapid Detection of *Fusarium graminearum* Chemotypes Using a Single-tube Multiplex High-Resolution Melting (HRM) Assay
407		Tolkaciovaite, Ieva	USDA-ARS	Genomic, Pathogenic, and Chemical Diversity of *Fusarium graminearum* Isolates Used in U.S. Barley Screening Nurseries
408		Yimer, Belayneh	USDA-ARS	A New Inoculation Method Suggests That Resistance Observed in Barley Genotypes to FHB May Be Due to Physical barrier
501	Variety Development and Host Resistance (VDHR)	Abdullah, FNU	Texas A&M AgriLife Research	Evaluation of Wheat Scab Disease Scores and Their Associations with Wheat Grains Through Grain Scan for Seed Traits
502		Abdullah, Sidrat	University of Idaho	Field Evaluation of Fusarium Head Blight Resistance and Mycotoxin Accumulation in Winter Wheat in Southeast Idaho (2020-2024)
503		Aoun, Meriem	Oklahoma State University	Development of Hard Red Winter Wheat 'Scab Stryker' for Adoption in Areas of Oklahoma Prone to Fusarium Head Blight
504		Bian, Ruolin	Kansas State University	Pyramiding of Three Major Genes to Fusarium Head Blight Resistance in 15 U.S. Hard Winter Wheat
505		Billow, Emily	Colorado State University	Advancing Wheat Resistance to Fusarium Head Blight Through Genomic Prediction
506		Brault, Charlotte	University of Minnesota	Improving Prediction of FHB Resistance in Wheat Using Genotype-by-Environment Information
507		Charif, Ahmed	University of Nebraska-Lincoln	*Fhb7*^{The2} Confers Significant FHB Resistance in Spring, Winter, and Durum Wheat
508		Concepcion, Jonathan	Michigan State University	Ensembles of Genomic and Hyperspectral Imaging-Based Predictions Enable Selection for Reduced Deoxynivalenol Content in Wheat Grains
509		Cooper, Julian	University of Minnesota	An RGB Based Deep Neural Network Approach for Field-Based High Throughput Phenotyping of Fusarium Head Blight in Wheat Using Mobile Images
510		Gillum, Maggie	University of Kentucky	Pyramiding FHB Resistance QTL Affects DON, Flavor, and Aroma in Soft Red Winter Wheat
511		Giroux, Michael	Montana State University	Developing Fusarium Head Blight Resistant Durum Wheat for Montana
512		Hathcoat, Daniel	Texas A&M AgriLife Research	Pyramiding Fusarium Head Blight Resistance in Wheat using Double Haploid Development

Poster #	Category	Presenter Name	Institution	Title
513	Variety Development and Host Resistance (VDHR)	Karmacharya, Anil	University of California-Davis	Genome-wide Association Analysis of Fusarium Head Blight Resistance in an Association Mapping Population Derived from Backcrosses of Synthetic Wheat with Spring Wheat Germplasm
514		Leiton, Ricardo	Montana State University	Quantification of FHB using Aerial Phenotyping in Montana's Winter Wheat Breeding Lines
515		Lyerly, Jeanette	North Carolina State University	The 2024 Uniform Southern Soft Red Winter Wheat Scab Nursery
516		Morris, Joyce	University of Kentucky	Effects of Fusarium Head Blight Resistance Genes on Flavor and Yield in Soft Red Winter Wheat
517		Nafchi, Ali M	South Dakota State University	FHB Detection Using 360-degree Deep Scanning Method
518		Park, Jinan	Kansas State University	Characterization of the Effects of Three Major Genes on Fusarium Head Blight Resistance in Different U.S. Hard Winter Wheat Backgrounds
519		Sellani, Julio	Louisiana State University Agricultural Center	Training Population Optimization for within-Family Predictions of Fusarium Head Blight Traits
520		Stockinger, Eric J	The Ohio State University	Deoxynivalenol Accumulation in Lines Tested in the Winter North American Barley Scab Evaluation Nursery
521		Tessmann, Dauri	Universidade Estadual de Maringa	Determination of Trichothecene Mycotoxins in Wheat Grains from Cultivar Trials in Paraná State, Southern Brazil
522		Thapa, Subash	South Dakota State University	Enhancing Predictive Accuracy for Fusarium Head Blight-Related Traits in Winter Wheat through Integrating Genomics, Phenomics, and Deep Learning
523		Tidakbi, Lawrence	Kansas State University	Identification of Fusarium Head Blight (FHB) Resistance Loci in Winter Wheat Using Exome and Promoter Capture Single Nucleotide Polymorphisms (SNPs)

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