FUSARIUM 2022

LABORATORY WORKSHOP

June 19-24

Kansas State University
Manhattan, KS

fusariumworkshop@ksu.edu
+1 (785) 532-1363
plantpath.ksu.edu/fusarium

SUNDAY, JUNE 19TH

Check into hotel/dormitory, workshop materials available at the front desk when you check in.

Evening 6:00 - 8:30 pm

- Social hour and dinner - Konza Prairie Biological Station

MONDAY, JUNE 20TH

Morning 8:00 am - Noon

- Welcome from the university administration
- Introduction to morphology, phylogenetics and taxonomy

LUNCH (on your own)

Afternoon 1:00 - 5:00 pm

- Species concepts
- *Fusarium sambucinum* species complex - Part 1
- Single spore isolation
- Soil dilution isolate recovery
- Plant sample isolate recovery

TUESDAY, JUNE 21ST

Morning 8:00 am - Noon

- *Fusarium* head blight modeling
- *Trichothecenes* and zearalenone
- Temperate region *Fusarium* species and diseases
- Vegetative compatibility groups and tests

LUNCH (on your own)

Afternoon 1:00 - 5:15 pm

- *F. oxysporum* and *F. solani* species complexes and basal lineages
- Single-spore laboratory follow-up
- Strain preservation and conservation

WEDNESDAY, JUNE 22ND

Morning 8:00 am - Noon

- *Fusarium fujikuroi* species complex - lecture
- Fumonisins and other mycotoxins
- *Fusarium* plant pathogenicity mechanisms
- ELISA principles and practice

REGISTRATION

Registration requires a nonrefundable $100 deposit to reserve space. Registration is not complete until the fees are paid. Full payment is due April 30. Registration after May 20 is on a space-available basis only. Enrollment is limited. Virtual attendance is not available due to lab work. Visit plantpath.ksu.edu/fusarium for more information.

Send registration questions to fusariumworkshop@ksu.edu or register online.

SPONSORS

VICAM
A Waters Business

FUNGAL GENETICS STOCK CENTER

WEDNESDAY, JUNE 22ND

LUNCH (on your own)

Afternoon 1:00 - 5:15pm

- Population genetics
- DNA sequence laboratory
- *Fusarium fujikuroi* species complex - laboratory

THURSDAY, JUNE 23RD

Morning 8:00 am - Noon

- *Fusarium incarnatum* species complex
- Tropical region *Fusarium* species and diseases
- Mating type - lecture

LUNCH (on your own)

Afternoon 1:00 - 5:00 pm

- *Fusarium sambucinum* species complex - Part II
- *Fusarium tricinctum* species complex
- *Fusarium* genetics and genomics
- Mating type - Laboratory
- Morphology quiz

Evening 6:30 - 10:00 pm

- Workshop pool party (Dr. Leslie's house)

FRIDAY, JUNE 24TH

Morning 8:30 - 11:30 am

- Mycotoxin detection and analysis
- *Fusarium* in human and domesticated animals
- Closing thoughts
- Distribution of certificates
- Workshop evaluation

ABOUT THE WORKSHOP

This workshop will be taught by international *Fusarium* experts. Participants will be introduced to standard morphological, genetic and molecular biological techniques used to identify and characterize strains of *Fusarium*.

Participants will learn to use morphological characters to identify the most common *Fusarium* species, how to make tests for vegetative compatibility groups (VCGs) and cross-fertility, and how to extract DNA, PCR amplifiy, and analyze DNA sequences. More than half the time will be spent in the laboratory working with the standard strains. Students may send some of their own strains (please contact John Leslie to arrange for proper USDA permits).

WORKSHOP / COURSE QUESTIONS

For workshop or course information, contact John Leslie at +1 (785) 532-1363 or email fusariumworkshop@ksu.edu. If you require a visa to enter the United States or need a letter of invitation to the workshop, please contact John Leslie. The letter of invitation will be sent to you by email. We will not send original letters to embassies or provide assistance in securing a visa.

LEAD INSTRUCTORS

Nancy Collette

Technical Service and Applications Manager at VICAM, a Waters Business. She has over 25 years of experience in mycotoxin analytical method development and the analysis of mycotoxins.

Erick DeWolf

Professor in the Department of Plant Pathology at Kansas State University. His research focuses on modeling and plant disease forecasting systems, with recent emphasis on fusarium head blight.

David Geiser

Professor in the Department of Plant Pathology and Director of the Fusarium Research Center, Pennsylvania State University. Experience with molecular evolution of fungi and fungal population genetics.

Rudolf Krska

Extensive experience with detection of mycotoxins. Professor at BOKU Vienna and Queen's University - Belfast. Has evaluated the impact of tricothecenes on humans for FAO/WHO (JECFA), and is among the Web of Science's top 1% most cited authors.

John F. Leslie

University Distinguished Professor in the Department of Plant Pathology at Kansas State University. Over 30 years of experience with *Fusarium* genetics and population analysis.

Antonio Logrieco

Director of the Institute for the Science of Food Production, National Council of Research (CNR-ISPA), Italy. Specializes in epidemiology, taxonomy, and molecular/chemical characterization of toxigenic *Fusarium* species.

Ludwig Pfenning

Professor in the Plant Pathology Department at the Universidade Federal de Lavras (Brazil). Specializes in morphological taxonomy, molecular phylogeny, epidemiology and *Fusarium* diseases of tropical crops.

Amgad A. Saleh

Associate Professor in the Department of Plant Protection at King Saud University. Over 15 years of experience with molecular and population genetics problems in plant pathogens.

Brett Summerell

Director of Science and Conservation at the Royal Botanic Garden Sydney (Australia). Over 30 years of experience with the taxonomy, identification, and description of *Fusarium* species and the plant diseases caused by these fungi. Co-authored two lab manuals on *Fusarium* identification.

Chris Toomajian

Associate Professor in the Department of Plant Pathology at Kansas State University. Interests include fungal genomics, population genetics, and speciation with expertise in the molecular signature of natural selection.

Anne Van Diepeningen

A fungal geneticist in the Biointeractions and Plant Health unit of Wageningen University and Research. She worked for several years at the Westerdijk Fungal Biodiversity Institute studying *Fusarium* infections in humans and animals, but now focuses on plant pathogens and mycotoxigenic species.

Jin-rong Xu

Professor in Botany and Plant Pathology at Purdue University. 25 years of experience with classic, molecular, and genomic studies of *F. graminearum* and *F. verticillioides* particularly with the signal transduction pathways that regulate pathogenesis and development.

PARKING

A parking permit is required to park anywhere on campus. Permits can be purchased through Parking Services at **ksu.edu/parking**. Select "Visitor Parking" in the left hand menu for more information.

STRAIN SET PURCHASE OPTION

An optional Strain Set is available for purchase for $600. (USDA permit required for US residents. Send a photocopy of the permit prior to the workshop to John Leslie). Strain fees are in addition to the workshop registration fee.

ACCOMMODATIONS

Optional campus housing and meals will be available during the workshop (6/19-6/24, ends with lunch) for $360. Additional days are available on request for $75 per day. A block of rooms is available at the Bluemont Hotel for $102/night and Marriott Courtyard for $109/night near campus. View the **Accomodations** page on our website for more information.

Participants are responsible for all transportation costs, including visas, to and from Manhattan and for their accomodations and meals, except those noted, while they are in Manhattan.

WORKSHOP FEES

The $2,500 registration fee includes workshop materials, handouts, a copy of the *Fusarium Laboratory Manual*, welcome and workshop dinners, lab supplies, a certificate of participation, and refreshment breaks each day. Limited financial assistance is available. Contact John Leslie at +1 (785) 532-1363 or email **fusariumworkshop@ksu.edu** for more information.

Payment must be received in USD. Wire charges, service charges and other bank fees are the responsibility of the registrant, not the Workshop.

CANCELLATION & REFUND POLICY

If you must cancel your registration, do so as soon as possible. Substitutions are accepted. Registration fees, less a $100 deposit, will be refunded if notice is received in the Workshop Registration Office by 5 pm CDT on May 20. After that date, due to guarantees we must give, no refunds will be given. Fees will not be refunded for registered participants who do not attend and have not notified our workshop coordinator or John Leslie on or before the cancellation date.

Kansas State University and the workshop coordinator may cancel or postpone any course or activity because of insufficient enrollment or other unforeseen circumstances. If a program is canceled or postponed, we will refund registration fees but cannot be held responsible for other costs, charges, or expenses, including cancellation/change charges assessed by airlines or travel agencies. Registration fees will not be canceled and refunds will not be issued if the program is held but the registrant is unable to attend due to travel delays or cancellations caused by inclement weather, or due to other extraordinary circumstances, including COVID-19, beyond the control of Kansas State University.

COVID-19 VACCINATIONS

Kansas State University is a US Federal Government Contractor and requires all faculty and staff to be fully vaccinated against COVID-19. We expect all participants and instructors to be vaccinated for the safety of all participants, instructors, and individuals at the workshop locations.

By attending the Fusarium Laboratory Workshop, you understand that COVID-19 is contagious and that Fusarium Laboratory Workshop and Kansas State University cannot guarantee that all participants and event staff will follow all recommended safety protocols. The Fusarium Laboratory Workshop and Kansas State University cannot prevent you from becoming exposed to, contracting, or spreading COVID-19 while attending its workshop and/or entering onto premises where workshop events are held. It is not possible to prevent the presence of the disease. Therefore, if you choose to attend the Fusarium Laboratory Workshop, you may be exposing yourself to and/or increasing your risk of contracting or spreading COVID-19.

Special Assistance

A participant in a workshop or noncredit program who needs accommodations due to a disability or who has special dietary requirements should indicate services needed at the time of registration. Early notification by May 20 is requested to ensure that accommodations can be provided in a timely manner.

Notice of Nondiscrimination

Kansas State University is committed to nondiscrimination in admissions, programs, and employment. Inquiries and complaints: Contact Insitutional Equity, Kansas State University, 103 Edwards Hall, Manhattan, KS 66506-4801, Phone: 1-785-532-6220; TTY: 1-785-532-4807.