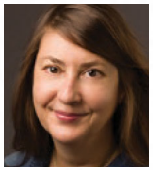
Faculty Research Interests

PURDUE UNIVERSITY | Botany and Plant Pathology
COLLEGE OF AGRICULTURE

PLANT PATHOLOGY



Cathie Aime
Mycology

Systematics, biology, and genomics of basidiomycetes with emphasis on rust fungi and tropical biodiversity.

maime@purdue.edu

Janna Beckerman
Ornamental and Fruit Diseases

Extension and research activities related to diseases of landscape ornamentals, nursery and greenhouse disease management, and small/tree fruit diseases.

jbeckerm@purdue.edu

Guohong Cai
Soybean Plant Pathology

Pathogen biology, population and genomics; hos-pathogen interactions; and phytobiome.

cai192@purdue.edu

Zhixiang Chen (CPB)
Molecular Plant Pathogen Interactions

Molecular basis of plant disease resistance; regulation of gene expression and signal transduction during plant defense responses to microbial pathogens.

zhixiang@purdue.edu

Christian Cruz
Plant Disease Management

Fungal ecology, epidemiology, host resistance, sensor-based methods for disease detection and quantification, plant disease management, and crop biosecurity.

cd-cruz@purdue.edu

Steve Goodwin
Plant Pathology

Molecular genetics of host-pathogen interactions; population genetics, evolution and speciation of plant pathogenic fungi; genetics and genomics of disease resistance in small grains.

sgoodwin@purdue.edu

Anjali Iyer-Pascuzzi (CPB)
Molecular Plant Pathology

Molecular and genetic basis of bacterial wilt disease and root development in tomato and Arabidposis.

asi2@purdue.edu

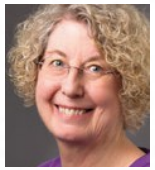
Guri Johal (CPB)
Maize Molecular Pathology and Genetics

Molecular and genetic basis of maize interactions with fungal pathogens; disease lesion mimic mutants and programmed cell death in maize.

gjohal@purdue.edu

OPEN POSITION
Turfgrass Pathology

Etiology, epidemiology, and management of turfgrass diseases.



Sue Loesch-Fries
Molecular Virology

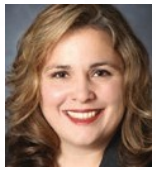
Function of viral genes in virus replication, disease development, and virus control.

loeschfr@purdue.edu

Tesfaye Mengiste (CPB)
Molecular Genetics of Plant Immunity

Molecular genetics of plant immune responses to fungal pathogens.

mengiste@purdue.edu



Darcy Telenko
Field Crop Pathology

Extension and research on the biology and management of field crop diseases.

dtelenko@purdue.edu

Jin-Rong Xu
Fungal Biology

Characterization of infection-related signaling pathways and genes important for fungal-plant interactions in *Magnaporthe grisea* and *Fusarium graminearum*.

jinrong@purdue.edu

Lei Zhang
Plant Nematode Interactions

Focus on how nematode effectors manipulate plant process at the molecular level with the aim of developing new tools for nematode management in agriculture.

leizhang@purdue.edu

WEED SCIENCE

Kevin Gibson
Weed Science

Ecology, biology, and management of invasive plant species and herbicide resistant weeds.

kgibson@purdue.edu

Bill Johnson
Weed Science

Biology and management of economically important weeds in agronomic crops; interactions between weeds, insects, and diseases.

wgj@purdue.edu

Bryan Young
Weed Science

Weed biology and ecology relative to developing effective management strategies in agronomic crops, herbicide application technologies for optimization and stewardship of herbicide use, and the physiological characterization of herbicide resistant weed biotypes.

bryanyoung@purdue.edu

Faculty Research Interests

PURDUE UNIVERSITY | Botany and Plant Pathology
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PLANT BIOLOGY

Leonor Boavida (CPB)

Plant Cell and Developmental Biology

Plant reproductive development, gamete identity and function, cell-cell communication.

lboavida@purdue.edu

Sharon Kessler (CPB)

Plant Cell and Developmental Biology

Signaling in plant reproductive development.

kessles@purdue.edu

Damon Lisch (CPB)

Plant Epigenetics

Epigenetic regulation of transposable elements in plants.

dlisch@purdue.edu

Scott McAdam (CPB)

Plant Evolutionary Physiology

Evolution of drought tolerance and response in plants, from stomatal behavior to xylem physiology and hormones.

smcadam@purdue.edu

Gordon McNickle (CPB)

Plant Ecology

Plant species coexistence and community structure. Ecological interactions with a focus on evolutionary game theory.

gmcnickle@purdue.edu

Mike Mickelbart (CPB)

Plant Physology

Plant adaptation to the environment and plant water use.

mickelbart@purdue.edu

Christopher Oakley (CPB)

Ecological and Evolutionary Genetics of Plants

Genetic basis of local adaptation, consequences of genetic drift for adaptation and population persistence.

oakleyc@purdue.edu

Bob Pruitt (CPB)

Plant Molecular Biology

Molecular and genetic regulation of growth and development of plants and their interactions with bacteria.

pruittr@purdue.edu

Chris Staiger (CPB)

Plant Cell Biology

Cellular basis of plant disease resistance and cytoskeletal response to biotic stress.

staiger@purdue.edu

Dan Szymanski (CPB)

Plant Cell Biology

Genetics and cell biology of plant growth. Molecular genetics live cell imaging, biochemistry, computational modeling of plant cell morphogenesis.

dszyman@purdue.edu

Gyeong Mee Yoon (CPB)

Plant Hormone Biology

Molecular, genetic, and biochemistry basis of the gaseous plant hormone ethylene function; protein turnover regulation in ethylene biosynthesis; ethylene signaling pathway.

yoong@purdue.edu

Yun Zhou (CPB)

Plant Cell and Developmental Biology

Plant stem cells, transcriptional signaling in plant development, cell-cell communication, live imaging, quantitative developmental biology.

zhouyun@purdue.edu

(CPB) Member, Center for Plant Biology

For more information about education opportunities in the Department of Botany and Plant Pathology at Purdue University: https://ag.purdue.edu/btny/Pages/default.aspx