

Faculty Research Interests

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; host-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 Arabidopsis. ai2@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



Charles P. Woloshuk

Corn/Mycotoxin Pathology

Genetics, biochemistry, and physiology of mycotoxin biosynthesis. woloshuk@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

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. wj@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

PLANT BIOLOGY



Jody Banks CPB

Plant Molecular and Developmental Biology
Genetic and molecular basis of sex determination and differentiation in plants.
banksj@purdue.edu



Leonor Boavida CPB

Plant Cell and Developmental Biology
Plant reproductive development, gamete identity and function, cell-cell communication.
lboavida@purdue.edu



Nick Carpita CPB

Plant Cell Enlargement
Biochemical and molecular aspects of plant cell growth and development; structure and biosynthesis of the plant cell wall.
carpita@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 Physiology
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

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



Mary Alice Webb

Plant Cell Biology
Plant cell and developmental biology; calcium oxalate accumulation in specialized cells.
webbm@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



Chunhua Zhang CPB

Plant Cell Biology
Chemical Biology Plant endomembrane trafficking; Screening and characterization of small molecules that target membrane trafficking pathway.
zhang150@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>