

Partnering with Michigan State University Researchers for success in the Plant Sciences



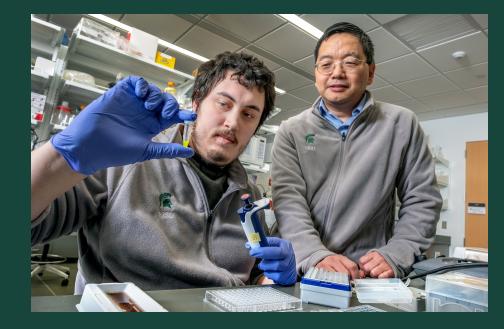
### Michigan State University: A Leader in Plant Science Research in the US & the World

Over 300 faculty, graduate & postdoctoral trainees engaged in almost every area of plant science research. MSU is at or near the top of nearly all US or world rankings & metrics. Highlights include:

- Plant science research in the College of Agriculture & Natural Resources is ranked 8th in the world.
- The Department of Plant Biology is awarded more federal funding than any other US institution
- MSU supports over 40 endowed faculty positions in the plant sciences & biology



### Michigan State University: A Leader in Plant Science Research in the US & the World



- MSU researchers disclose upwards of 70 invention disclosures annually applicable to plant/crop technology
- More "highly cited" faculty in the plant sciences that any other US university
- MSU has multiple centers, institutes and specialty laboratories including:
  - Plant Resilience Institute
  - Great Lakes Bioenergy Research Center
  - MSU DOE Plant Research Laboratory
  - Controlled Environment Lighting Laboratory
  - MSU team for Innovation in Plant Phenomic Data Acquisition & Analysis

Leverage the strengths of MSU's plant science research portfolio

### MSU Plant Science Research: Addressing the Most Important Challenges to Industry



- Biotic and abiotic plant stress
- Photosynthetic efficiency and productivity
- Plant growth regulation
- Disease defense and resistance, multiple scientific approaches including biotechnology and breeding
- "Green" compounds for antimicrobial, antifungal, anti-pest and numerous other applications

# MSU Plant Science Research: One of the most diverse portfolios of plant research in the world

- Leading edge synthetic biology research efforts to broadly address the need for more nutritious food, improved prevention & treatment of diseases & reduced environmental impacts
- Broad research strengths involving mechanisms of the photosynthetic system to determine how plants survive, grow & to push the limits of photosynthetic efficiency
- Multidisciplinary research into plant phenomic data acquisition & analysis for breeding efficiency, precision agriculture, high scale & throughput & modeling



# MSU Plant Science Research: One of the most diverse portfolios of plant research in the world

- Comprehensive program of study on the molecular and biochemical basis plant-insect interactions involving plant defense
- Ongoing discovery research of novel natural compounds to provide for new "green" pesticides
- Comprehensive research on environmental tolerances involving phonemics genomics, metabolomics, & breeding
- Numerous researchers leading the effort to produce inks, adhesives, cosmetics, and other value added products from various plant-sourced compounds



#### What could a partnership with MSU look like?



- Access to specific faculty experts for early stage discussions
- Research projects to address critical commercial concerns
- Company RFP's to solicit proposals tailored to company needs
- Sponsorship of an institute or center
- Participation in advisory groups/committees
- Access to talented students trained by world class faculty researchers
- Access to top notch facilities & farms covering one of the most diverse plant and agriculture environments in the US

#### Thank you!

## Join MSU in a collaborative effort to address your company's research needs

AND

Address critical worldwide issues in agriculture, food production, and the environment

