



Biochemical Processing

Biochemical processing research will further develop industrial fermentation and downstream processing strategies to enable successful commercialization of various bioprocessing technologies. Industry and faculty use the facility to scale-up new biotechnology products and processes for crop seed technologies through finished consumer products. In addition, the BioCentury Research Farm is equipped to replicate the entire dry-grind ethanol process at large pilot scale, allowing researchers to develop new technologies to reduce water and energy consumption in grain ethanol production.

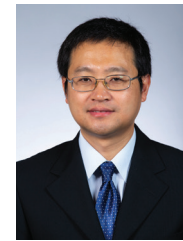
Accomplishments

- » Worked with a leading algae technology company to develop natural food supplements.
- » Pilot-scale work done with Pioneer Hi-Bred International, Inc. to develop recombinant proteins productions.
- » Production of bioplastic materials and bio-pesticide for the start-up companies.
- » Worked with Kemin Industrial to develop processes to increase the efficiency of ethanol production.

Future Work

- » Establish the BioCentury Research Farm as the top research facility for large pilot-scale fermentation for the food, feed, pharmaceuticals and fuels industries.
- » Develop hands-on training programs on industrial processes.
- » Create fermentation-derived products.
- » Provide platforms for the testing and development of bioprocessing-related sensor, instrumentation and control technologies.

Team Members



Zhiyou Wen
Professor
Food Science and
Human Nutrition

(515) 294-0426
wenz@iastate.edu

William Colonna
Center for Crops Utilization Research

Hui Wang
Center for Crops Utilization Research

Iowa State University does not discriminate on the basis of race, color, age, ethnicity, religion, national origin, pregnancy, sexual orientation, gender identity, genetic information, sex, marital status, disability, or status as a U.S. Veteran. Inquiries regarding non-discrimination policies may be directed to Office of Equal Opportunity, 3410 Beardshear Hall, 515 Morrill Road, Ames, Iowa 50011, Tel. 515 294-7612, Hotline 515-294-1222, email eooffice@iastate.edu