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MSU Food Product Development Lab (montana.edu/foodprodevlab/), Department of Health and Human Development

Sustainable Food Product Development – Specialty crops, Indigenous foods, Farm-to-Campus

ENGINEERING FOOD MICROSTRUCTURE FOR PROGRAMMED NUTRITION

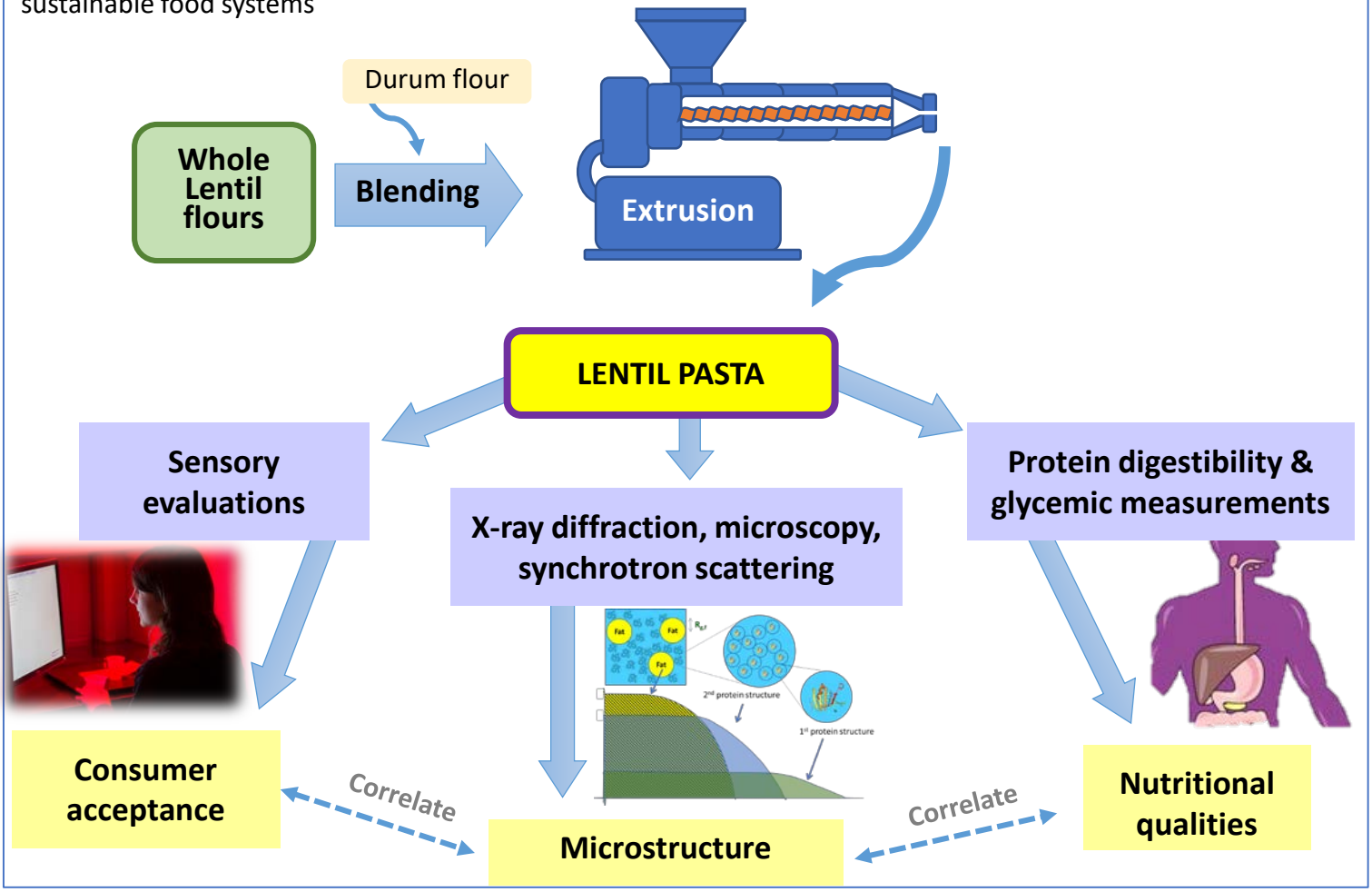
What we do

- Apply engineering and material science to design food microstructures with programmed nutrient delivery – creating healthier food products with desirable nutritional qualities
- For example, using extrusion technology to increase protein bioavailability and slow down glucose release from lentils and chickpea products.

What you will learn:

- Food processing and engineering concept to develop food products with microstructures that lead to desirable nutritional and sensory qualities.
- Equipment: twin-screw extruder, powder X-ray diffractometer, scanning electron microscopy, texture analyzer, and, when available, synchrotron X-ray and neutron scattering.
- Labs: prototype development, simulated enzymatic gastrointestinal digestion, human sensory tests

Who should join: Students interested in careers or graduate schools in food science, food engineering, or sustainable food systems



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The Montana Nanotechnology Facility (MONT) is an NSF-funded grant that supports shared-use lab facilities at MSU. One goal of MONT is to provide access to nanoscience related research along with associated facility training for undergraduate students. NSF Award Number ECCS-202539.