SPECIALISTS IN Novel Technologies for nutritious and safe food manufacture

Experts in:
• Non-thermal and thermal technologies
• Human nutrition studies
• Food Engineering
• Food rheology
• Nanotechnology

SELECTED RECENT PROJECTS
• Extrusion technology for high protein and high fibre formulations
• Membrane technology for nutrient recovery from manufacturing stream wastes
• Nanotechnology for developing biodegradable/Recyclable bioplastics for packaging
• Fortification technology (edible Coating technique) for adding micronutrients into foods

Recent publications:

THE TOOLS OF OUR TRADE
• Pilot scale thermal (drying and extrusion) and non-thermal (ultra sound and Hydrostatic High Pressure processing)
• Physical and chemical analytical techniques for testing food components and functionality
• High-end microbiology facilities for molecular and analytical research for food safety
• In vivo (human and animal studies) capabilities and in vitro gut models; ex-vivo call culture models

COMPETITIVE ADVANTAGES OF YOUR TECHNOLOGIES
• Optimised high pressure and high temperature technology for directly expanded/highly digestible plant protein products
• Technical knowhow for fortifying rice grain with micronutrients
• Technical know-how for separating plant proteins from food manufacturing waste streams- value addition technology
• Easy Access IP for extracting nanocellulose from agricultural wastes for use as biodegradable packaging material

TRACK RECORD
• Establishing a training Centre for Advanced Technologies in Food Manufacture- $2.1M from the Australian Research Council
• $2M in cash and kind from five Australian and International Food companies towards research into newer technologies for food manufacture
• Efficacy of wheat flour fortification with multiple micronutrients in PNG- funding through one of the largest flour millers in Australia and PNG through a human intervention study in school children.

OUR EXPERTS
1. A/Prof. Jayashree Arcot
2. A/Prof. Alice Lee
3. Dr. Robert Driscoll
4. A/Prof. Jian Zhao
5. Dr. Francisco Trujillo

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