

Division of Food Sciences School of Biosciences



The University of
Nottingham

UNITED KINGDOM · CHINA · MALAYSIA

EPSRC CENTRE FOR INNOVATIVE
MANUFACTURING IN



- **Broad Research Team:**

- Saturated and *trans* fat reduction: Vincenzo di Bari and Hui Zhang
- Clean label emulsifiers: Dr Joanne Gould
- Food Structure: Prof Tim Foster
- Food Colloids and Processing: Dr Bettina Wolf
- Lipids and Sustainable processing: Dr David Gray

Contact: name.surname@nottingham.ac.uk



The University of
Nottingham

UNITED KINGDOM · CHINA · MALAYSIA



Loughborough
University

UNIVERSITY OF
BIRMINGHAM

Wax Oleogels: a novel strategy to reduced *trans*-saturated fats in food

EPSRC CENTRE FOR INNOVATIVE
MANUFACTURING IN



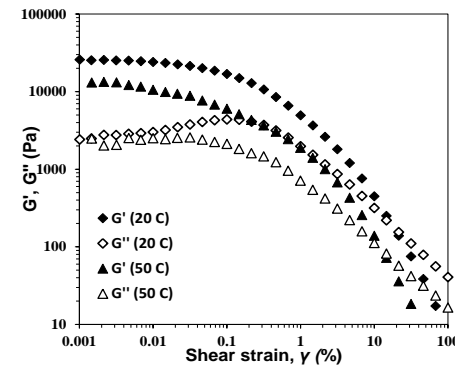
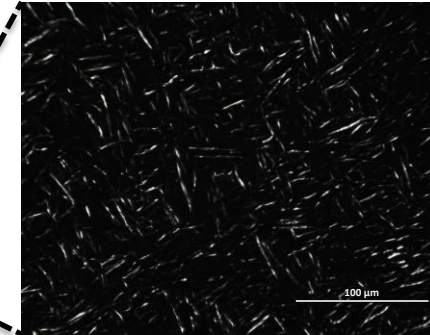
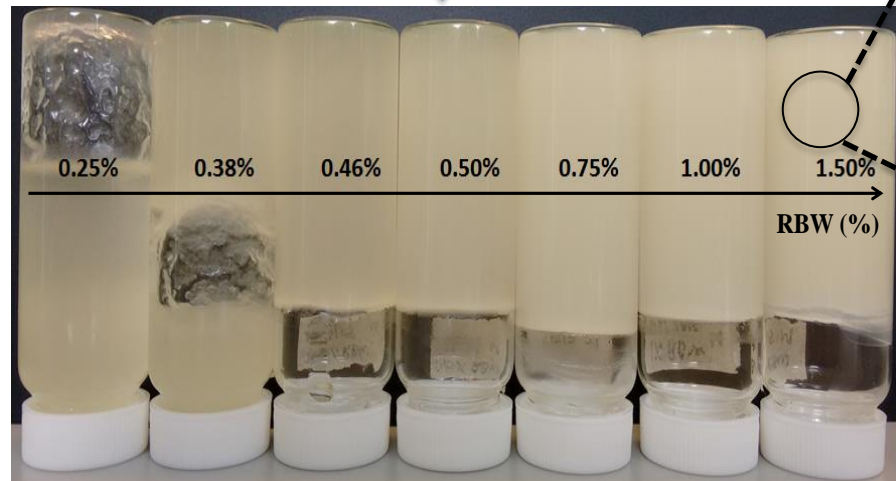
Traditional



Saturated and *trans* triglycerides form a network



Novel



Research challenges

- Understand structural arrangements and formulation effects
- Design processes to tailor physical properties
- Incorporate oleogels into multi-phase systems (emulsions)



The University of
Nottingham

UNITED KINGDOM · CHINA · MALAYSIA



Loughborough
University

UNIVERSITY OF
BIRMINGHAM

Re-design foods structure and nutritional value enhancement

EPSRC CENTRE FOR INNOVATIVE
MANUFACTURING IN



- Aqueous extraction of oleosomes from oil-rich seeds (no use of organic solvents) (Dr David Gray)
- Food Colloids and Processing (Dr Bettina Wolf)
- Development of clean label emulsifiers to stabilise multiphase systems (Dr Joanne Gould)
- Provide structure in high-moisture foods using plant cell wall materials (Prof Tim Foster)



The University of
Nottingham

UNITED KINGDOM · CHINA · MALAYSIA



Loughborough
University

UNIVERSITY OF
BIRMINGHAM