



Issue 02 | Oct 2017

FRESH NEWS STRAIGHT FROM THE SOURCE

Announcements



Human Milk Conference

Contingent at the Human Milk Conference, July 2017

From 16th – 21st July 2017, the Federation of American Societies for Experimental Biology (FASEB) hosted a conference on the Origins and Benefits of Biologically Active Components in Human Milk, held in Lisbon. AgResearch's Food Nutrition & Health team, led by Prof Nicole Roy (Riddet Institute PI), was in attendance.

New Investigators Principal Investigator Professor Joanne Hort (Massey University, pictures right). Prof Hort is a sensory science expert and the Fonterra-Riddet Chair in Consumer and Sensory Science at Massey University.



Associate Investigators
Assistant Prof Gail
Bornhorst (University of
California, Davis,
pictured left).

MBIE Funding for CoRE Partners

The MBIE Endeavour Fund invests in excellent research that has the potential to positively transform New Zealand's future economic performance, sustainability and integrity of our environment, help strengthen society, and give effect to Vision Mātauranga (see more here). This year's Round was very competitive, with a total of 408 applications, of which only 68 were successful (≈17% success rate). The successful proposals were selected by the Science Board, an independent statutory Board, following robust assessment by around 220 New Zealand and international independent experts.

The Riddet Institute is pleased to acknowledge that three collaborative programmes led by one of our partners, AgResearch, with important contributions from the Institute, were successful. One is a Smart Idea entitled "Harnessing ruminant milk proteolytic capacity to improve the nutritional quality and immune protective function of infant formula". This programme was developed by Profs Nicole Roy (AgResearch, Riddet Institute PI) and Warren McNabb (Riddet Institute PI) and received total funding of \$1 million for 3 years.

The other two successful applications were Research programmes. "Smarter Lives: New opportunities for dairy products across the lifespan", also led by Prof Roy, received total funding of \$12.5 million for 5 years. The other programme, "Accelerated evolution: a step-change in food fermentation" is led by Prof Li Day and received total funding of \$8.6 million for 5 years.

Congratulations also go to Plant and Food for their research programme "Filling the void: boosting the nutritional content of NZ fruit" funded for 5 years at \$5.15 million, and to The University of Auckland for their Smart Ideas "Advances in fermentation using underwater sound" and "Impact for Spray Drying: Optimizing Drop Dynamics with Surface Designs", both funded for 3 years for approximately \$1 million.

We congratulate our partners, all of whom who were successful with at least one MBIE funded programme, and wish them the best with their future research. More details about the various successful Smart Ideas and Research Programmes funded through the 2017 MBIE Endeavour Round can be found on their website here: http://www.mbie.govt.nz/info-services/science-innovation/investment-funding/current-funding/2017-endeavour-round/successful-proposals





Left: Jessie (Xiaojie) Zhu Right: Elaine (Xin) Wang

Masters in the Making

Both Jessie (Xiaojie) Zhu and Elaine (Xin) Wang have recently submitted their Masters theses.

Jessie's thesis was on the Effect of Kiwifruit Enzyme on Meat Tenderisation. She was supervised by Massey University's Dr Lovedeep Kaur and Dr Mike Boland (both Riddet Institute AIs).

Elaine's thesis was on The Behaviour of Milk Protein Ingredients During Gastric Digestion. She was supervised by Massey University's Assoc Prof Aiqian Ye (Riddet Institute AI).

Scientific Advisory Panel Visit

From 1st November, the Scientific Advisory Panel (SAP), comprising Profs Alastair Robertson, Paul Ross, Mark Wahlqvist, and Rickey Yada, will be visiting New Zealand. They will visit various members of the Riddet family and be in attendance at DOF2017 and the Student Colloquium.

Student Travel Awards

Student Travel Awards are available to all Riddet Institute PhD students to assist with cost of work-related travel; previous successful applications have requested help with paying for travel to international conferences. Applications can be made year-round; please contact John Henley-King (J.S.Henley-King@massey.ac.nz) or Hannah Hutchinson (h.hutchinson1@massey.ac.nz) for an application form.

Overseas Placement

A reminder for PhD students to submit any applications for Overseas Placements. The deadline is 31st October. For an application form, please contact John Henley-King or Hannah Hutchinson.

Māori Summer Scholarships

We have 5 Māori summer scholarships (of \$7000 each) available for Māori undergraduate students to undertake a relevant research project over the summer period. For more information, contact John Henley-King.

The Riddet Institute's New Look

As some may have noticed, the Riddet Institute has a new strapline to its logo. This change is just the beginning for a broader communications strategy that will reflect our values more accurately and show the wider scientific community and world what the Riddet Institute stands for.

The choice of "Advancing Frontiers in Food Science" was made to represent our commitments to cutting-edge science and research which will future-proof New Zealand's food industries. We are working together with Massey University's School of Māori Art, Knowledge and Education to translate this sense of excellence and pioneering into Te Reo Māori.

The old logo will no longer be used and all communications, templates and signage bearing it will be updated in due course. For updated templates, communications or a copy of the new logo to use in conference proceedings, publications, or other affiliation purposes, please contact Hannah Hutchinson at h.hutchinsonl@massey.ac.nz.





Competitive Scholarships

After a competitive application round for additional scholarships and funding, which ended 5th September, we are happy to announce that seven Competitive Scholarships were awarded on 25th September to the following projects:

- Linking protein matrix structure to digestibility and consumer acceptability through oral processing; Prof John Bronlund (Massey University).
- Macromolecular complexes in food colloids; Dr Renwick Dobson (University of Canterbury).
- Synthetic casein-micelles: A bottom-to-top approach to milk; Assoc Prof Yacine Hemar (University of Auckland).
- Foods to stimulate the metabolism of human commensal *Faecalibacterium prausnitzii*; Prof Warren McNabb (Massey University).
- Rate of digestion, absorption and metabolism of dietary proteins with different levels of tryptophan; Dist Prof Paul Moughan (Massey University).
- Dissecting the impacts of food structure on gastrointestinal microbial signaling networks to optimize nutrient uptake in humans; Prof Nicole Roy (AgResearch).
- Biomimetic Wheat Flour (BWF): An Artificial Wheat Flour with Low Glycaemic Features; Dr Jaspreet Singh (Massey University).

Awards & Appointments

Prof Tracey McIntosh Awarded the Te Rangi Hīroa Medal

Prof McIntosh (RI Board Member, Massey University) received the award for advancing our understanding of enduring social injustices that undermine Māori wellbeing and inhibit social cohesion and meaningful cultural diversity in Aotearoa.

Best Scientific Poster Award

PhD student Sheba M. Duque received the Best Scientific Poster Award at the 67th Australian Cereal Chemistry Conference held in Christchurch in Sep 2017.

Best Early Stage Investigator/ Postdoctoral Oral Presentation

Sze Ying Leong (Post-Doc Fellow, Otago) was awarded first place for her presentation on metabolites, phenolics and sensory profiling of wines produced from PEF-treated Sauvignon Blanc grapes at the USA World Electroporation Congress held in Norfolk, USA from 24-28 Sep 2017.

Student Travel Award

Riddet Institute PhD student Feng Ming Chian has been awarded a Student Travel Award to collaborate with INRA, France. Her thesis concerns the effect of processing on muscle microstructure and protein digestibility in vitro.

New Affiliated Researchers

The following AgResearch scientists have recently been awarded Affiliated Researcher status:

Dr Matthew Barnett,

Dr Julie Dalziel,

Dr Karl Fraser,

Dr Mark McCann,

Dr Jane Mullaney,

Dr Elizabeth Rettedal,

Dr Amy Van Wey-Lovatt.

Upcoming Events

Food Structures, Digestion & Health (Sydney)

24th-27th Oct

This conference, co-sponsored by CSIRO and the Riddet Institute, promotes the significant effect that food format and food structure have on the bio-availability of nutrients. Riddet Institute scientists including Prof W McNabb (Deputy Director), Profs J Hort and N Roy (PIs) and Assistant Prof G Bornhorst (AI) will be present as well as over 40 students and other Riddet Institute research staff. See: https://www.foodstructuresdigestionandhealth2017.com/

Riddet Institute Student Colloquium (Auckland)

5th Nov

This will be a great opportunity for PhD students and their supervisors from across our partners to network and discuss projects. The Riddet Institute Scientific Advisory Panel (SAP) will also be in attendance.

7th International Delivery of Functionality in Complex Food Systems Conference (Auckland)

5th-8th Nov

This conference, organised by the Riddet Institute, will present new scientific developments in complex food systems, along with their applications to food engineering design, food functionality, and consumption. Prof H Singh (PI) and various members of the SAP will be speaking.

See: http://www.dof2017.org.nz

Atomic Force Microscopy workshop in Food and Nutrition Research (Auckland)

9th-10th Nov

Following the DOF Conference, this 1½-day workshop (co-organised by Dr Simon Loveday) provides participants with practical experience of analysing food materials using the latest AFM techniques and equipment. Recent progress in the field will be presented by leading international AFM experts.

See: https://www.dof2017.org/atomic-force-microscopy-and-food-workshop/

The Riddet Institute Partners











