### Poster Programme

**Poster session 1 on Wednesday 30th September 2015 at 12:30 - 14:00**

**Poster session 2 on Thursday 1st October 2015 at 12:30 - 14:00**

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| [P1.01]       | Effect of starter culture on structural and sensory properties of fermented gel | T.V.H. Priyashantha\(^1\), A.Q. Pérez\(^2\), R.M. Baixauli\(^3\), M.P.F. Albalat\(^4\), J.K. Vidanarachchi\(^*\),  
                \(^1\)University of Peradeniya, Sri Lanka, \(^2\)University of Santiago de Compostela, Spain |
| [P1.03]       | Effect of dephosphorylation on the physicochemical and functional properties of α\(_{\text{s1}}\)-casein | X.L. Sun\(^*\), S.G. Anema\(^2\), C.J. Coker\(^3\), J.A. Gerrard\(^1\),  
                \(^1\)University of Canterbury, New Zealand, \(^2\) Fonterra Research Centre, New Zealand |
| [P1.04]       | Factors influencing the gelation and rennetability of camel milk using camel chymosin | Y. Hailu\(^*\), R. Ipsen\(^1\), E.B. Hansen\(^1\), E. Seifu\(^1\), M. Eshetu\(^1\),  
                \(^1\)University of Copenhagen, Denmark, \(^2\) Haramaya University, Ethiopia,  
                \(^3\) Technical University of Denmark, Denmark, \(^4\) Botswana College of Agriculture, Botswana |
| [P1.05]       | Statistical analysis of destabilization of casein micelles at pilot scale through variations of pH, nature of acids, temperature and protein content | C. Broyard\(^*\), G. Gaucheron\(^1\), \(^2\) INRA, France, \(^3\) AgroCampus Ouest, France |
| [P1.06]       | Physico-chemical, microstructural and rheological properties of camel-milk yogurt as enhanced by microbial transglutaminase | N.H. Abou-Soliman\(^*\), S.S. Sakr\(^7\), S. Awad\(^3\),  
                \(^1\) Desert Research Centre, Egypt, \(^2\) Cairo University, Egypt, \(^3\) Alexandria University, Egypt |
| [P1.07]       | A novel biosensor for continuous in-line measurement of plasmin activity in milk | H. Dacres\(^*\), M. Gel\(^2\), J. Wang\(^2\), A.R. Anderson\(^1\), S.C. Trowell\(^1\),  
                \(^1\) CSIRO Food & Nutrition Flagship, Australia,  
                \(^2\) CSIRO Manufacturing Flagship, Australia |
| [P1.08]       | Native whey proteins from milk - not from whey! | A. Lihme\(^*\), B. Lindved, J.K. Aaling, M.B. Hansen, Upfront Chromatography A/S, Denmark |
| [P1.09]       | Functionality of milk protein concentrate as fat replacer in vanilla ice cream: Sensory, physicochemical and rheological evaluations | S. Mostafavi, Research Institute of Food Science and Technology, Iran |
| [P1.10]       | Exopolysaccharide-producing cultures and milk protein ingredients: their effect on microstructure, textural and sensory properties of stirred yoghurts | P. Buldo\(^*\), C. Benfeldt\(^1\), R. Bibiloni\(^1\), D.M. Folkenberg\(^2\), H. Bak Jensen\(^2\), J.M.A. Rubio\(^1\), S. Sieuwerts\(^3\), R. Ipsen\(^1\),  
                \(^1\) University of Copenhagen, Denmark, \(^2\) Arla Foods Ingredients, Denmark, \(^3\) Arla Foods, Denmark, \(^4\) Chr. Hansen, Denmark |
| [P1.11]       | Interactions between different milk proteins and different gellan forms: Their effect on microstructure and textural properties of acidified milk | P. Buldo\(^*\), J.P. Carey, K. Vlachvei, R. Ipsen, University of Copenhagen, Denmark |
| [P1.12]       | A novel high-value whey ingredient processed with a new filtration technology | S.R.D. Doering\(^*\), R.Z. Zink, Deutsches Milchkontor, Germany |
| [P1.14]       | Biological activity of raw and commercial bovine buttermilk and its hydrolysates | D. Ripollés\(^*\), J.A. Parrón\(^1\), S. Harouna\(^1\), I. Arenales\(^2\), M. Calvo\(^3\), M.D. Pérez\(^2\), R.J. Fitzgerald\(^3\), L. Sánchez\(^2\),  
                \(^1\) Universidad de Zaragoza, Spain, \(^2\) Universidad Tecnológica de Tehuacán, Mexico, \(^3\) University of Limerick, Ireland |
| [P1.15]       | Molecular changes in β-lactoglobulin during formation of heat-induced microgels | C. Schmitt\(^*\), C. Bovay\(^1\), T.J. Wooster\(^1\), C. Sanchez\(^2\),  
                \(^1\) Nestlé Research Center, Switzerland, \(^2\) INRA-Montpellier SupAgro-CIRAD-Université Montpellier, France |
<p>| [P1.16]       | Effect of heat treatment on anti-rotavirus activity of bovine and ovine whey and buttermilk | J.A. Parrón(^*), D. Ripollés, L. Sánchez, M.D. Pérez, University of Zaragoza, Spain |</p>
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<td>Novel whey protein isolate nanocarriers for oral micronutrient delivery</td>
<td>S. Mathurin-Charles¹, P.A. Owanoaro², S. Farnaud³, D. Renshaw³, S. Somavarapu¹, M.G. Ziriwala¹,², ¹University of Bedfordshire, UK, ²University of Westminster, UK, ³UCL School of Pharmacy, UK</td>
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<td>Micro-structuring whey protein concentrate in a tubular heat exchanger: The effect of temperature and shear upon technological properties of whey</td>
<td>F. Kerche Paes da Silva*, M. Weterings, M. Beyrer, University of Applied Sciences Western Switzerland, Switzerland</td>
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<td>Red-green alarming method to determine adulterated milk powder</td>
<td>A.M. Pustjens¹,², A.M. Wijten³, I.C.J. Silvis³, G. Polder³, M. Alewijn³, S.M. van Ruth³, ²RIKILT - Institute of Food Safety, The Netherlands, ³Greenhouse Horticulture, The Netherlands</td>
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<td>A. Bahri¹, M. Martin², C. Gergely², M. Pugnière³, S. Marchesseau¹, D. Chevalier-Lucia¹, ¹Université de Montpellier, France, ²Université de Montpellier, France, ³IRCM-CRLC Val d’Aurelle, France</td>
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<td>P1.21</td>
<td>Effect of temperature and pH variations on the viscoelastic moduli of fully coagulated cheese curd</td>
<td>H. Shima¹, M. Tanimoto¹, N. Kobayashi¹, K. Nakamura¹, K. Sato¹, ¹University of Yamanashi, Japan, ²Hokkaido Bunkyo University, Japan</td>
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<td>Bio-active peptides in low-fat Cheddar cheese</td>
<td>F. Ciocia*, D. O’Driscoll, P.L.H. McSweeney, University College Cork, Ireland</td>
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<td>P1.23</td>
<td>A new bovine chymosin giving improved texture and flavor of cheese</td>
<td>M. Tabeling¹, B. Folkertsma¹, B. Savage², P. Dekker³, ¹DSM Biotechnology Centre, The Netherlands, ²DSM Food Specialties, The Netherlands</td>
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<td>The heat stability of milk</td>
<td>M.J. Lewis, University of Reading, UK</td>
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<td>Microstructure and rheological properties of camel milk during acid gelation: A comparative study with cow milk</td>
<td>A. Zouari¹, M. Soula¹, D. Chevalier-Lucia¹, M.A. Ayadi², S. Marchesseau¹, L. Picart-Palmade³, ¹Université de Montpellier, France, ³Laboratoire Valorisation, Tunisia</td>
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<td>Thermal stability of deamidated whey proteins</td>
<td>I.C. Vilalva*, A. Imbert, T. Huppertz, NIZO food research, The Netherlands</td>
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<td>Factors influencing the enzymatic deamidation of whey proteins</td>
<td>I.C. Vilalva*, T. Hogendoorn, T. Huppertz, NIZO food research, The Netherlands</td>
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<td>Effects of milk protein isolate on the properties of cheddar cheese during ripening</td>
<td>S. Ikegami¹,², F. Ciocia³, D. Waldron³, P.L.H. McSweeney³, ¹Morinaga Milk Industry Co., Ltd., Japan, ³University College Cork, Ireland</td>
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<td>Comparison of the acidification of commercial starter cultures on camel and cow milk</td>
<td>T. Berhe¹, R. Ipsen¹, E. Seifur¹, M.Y. Kurtu¹, M. Eshtetu¹, E.B. Hansen¹, ¹Haramaya University, Ethiopia, ²University of Copenhagen, Denmark, ³Botswana College of Agriculture, Botswana, ⁴Technical University of Denmark, Denmark</td>
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<td>Stability of Swedish ultra-high temperature treated milk during storage at different temperatures</td>
<td>M.A. Karlsson¹, A. Sternesjö Lundh¹, M. Langton¹, F. Innings¹, J. Lindau¹, B. Malmgren⁵, B. Svensson⁵, E. Gruffum¹, K. Hallin-Sädeén¹, M. Wikström³, ⁵Swedish University of Agricultural Sciences, Sweden, ⁶Tetra Pak Processing Systems AB, Sweden, ⁷Norrmjeierik Ek. Förening, Sweden</td>
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<td>Control of pH improves the rennet coagulation properties of heated skim milk</td>
<td>S. Ikegami¹,², F. Ciocia³, P.F. Fox², P.L.H. McSweeney², ¹Morinaga Milk Industry Co., Ltd., Japan, ²University College Cork, Ireland</td>
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<td>The effect of moisture content and ethylenediamine tetaacetic acid addition on the textural and rheological properties of Gouda-type cheese during ripening</td>
<td>L.N. McAuliffe¹, J.J. Sheehan², D.S. Waldron³, P.L.H. McSweeney¹, ¹University College Cork, Ireland, ²Teagasc, Moorepark, Ireland</td>
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<td>L.N. McAuliffe¹, K.N. Kilcawley², J.J. Sheehan², P.L.H. McSweeney¹, ¹University College Cork, Ireland, ²Teagasc, Moorepark, Ireland</td>
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[P1.35] Effect of tailored protein interactions as influenced by ionic environment and solvent quality on Rheological properties of acid gels  
H. Patel*1, H. Meletharayil1, T. Huppertz1, 2South Dakota State University, USA, 2NIZO Food Research, The Netherlands

[P1.36] Effects of non-micellar to micellar casein ratio on soluble phase protein interactions and texture of acid gels  
H. Patel*, H. Meletharayil, South Dakota State University, USA

[P1.37] Characterization of dairy powder flow properties by FT4 powder Rheometer  

[P1.38] Effect of controlled hydrodynamic cavitation on yogurt making properties of skim milk  
H. Patel*1, H. Dahiya1, T. Huppertz1, 2South Dakota State University, USA, 2NIZO Food Research, The Netherlands

[P1.39] Investigation of the interaction of vitamin D with beta casein by fluorescence spectroscopy and surface plasmon resonance  
A. Bahri*1, M. Pugnière2, D. Chevalier-Lucia1, S. Marchesseau1, 1Université de Montpellier, France, 2IRCM-CRLC, France

[P1.40] Milk fat globule membrane structure and its impact upon xanthine enzymatic activity and oxidation reduction potential in model emulsion system  
Z. Haddadian*1, 2, A. Carne1, D.W. Everett1, 2, 1University of Otago, New Zealand, 2Massey University, New Zealand

[P1.41] Fabrication and characterization of casein micro-particles for functional substance  
Y.Z. Zhuang*, U.K. Kulozik, R.G. Gebhardt, Technische Universität München, Germany

[P1.42] Effects of calcium chelating salts on the functionality of milk protein concentrate  
N.A. McCarthy*, K. Thapa, L. Mao, P.M. Kelly, M.A. Fenelon, Teagasc Food Research Centre, Moorepark, Fermoy, Co. Cork, Ireland, Ireland

[P1.43] Structuring whey and alginate based micro- and nanoparticles for delayed proteolytic digestibility in vitro  
O.E. Mäkinen*, R. Ipsen, University of Copenhagen, Denmark

[P1.44] Effect of heating processes on whey protein denaturation - Revisited using LC-QTOF-MS  
M. Akkerman5, V.M. Rauh5, M. Christensen6, L.B. Johansen6, M. Hammershøj1, L.B. Larsen*5, 1Aarhus University, Denmark, 6University of Aarhus, Denmark

[P1.45] Effects of salts on the rehydration behaviors of Milk Protein Concentrate (MPC)  
L. Mao*, M. Boiani, N.A. McCarthy, M.A. Fenelon, P.M. Kelly, Teagasc Food Research Centre, Ireland

[P1.46] Source of milk fat globule membrane affects xanthine oxidase activity and oxidation reduction potential in model emulsion systems  
Z. Haddadian*1, 2, G.T. Eyres1, A. Carne1, D.W. Everett1, 2, 1University of Otago, New Zealand, 2Riddet institute, New Zealand

[P1.47] Use of front-face fluorescence spectroscopy for analysing the effects of heat treatment on rehydrated skim milk powder  
L. Henihan*1, 2, D.J. O Callaghan1, C.P. O Donnell2, 1Teagasc Food Research Centre, Ireland, 2UCD, Ireland

[P1.48] Characterization of mixed soluble aggregates of pea globulins and beta-lactoglobulin  
M.L. Chihi*, N. Sok, J.L. Mession, R. Saurel, Agrosup Dijon PAPC, France

[P1.49] Surface activity and bile acid sequestration of dairy protein-derived peptides and their plastein aggregates  
A. Mohan, C. Udenigwe*, Dalhousie University, Canada

[P1.50] Stickiness of bioactive peptide-containing casein hydrolysate coatings  
N.E. Noren*, S.D. Arntfield, University of Manitoba, Canada

[P1.51] Structural and immunogenic characterization of differently organized bovine beta-lactoglobulin aggregates  
I.C. Verhoek1, G. Teodorowicz2, H. Wichers2, K. Broersen*1, 1University of Twente, The Netherlands, 2Wageningen University, The Netherlands

[P1.52] Improved heat stability of whey protein isolate and WPI-stabilised emulsions by conjugation with Low Methoxyl Pectin  
A.D. Setiwati*, P. Van der Meeren, Ghent University, Belgium

[P1.53] In silico modelling of digestion  
G. van Aken, NIZO Food Research, The Netherlands
### Poster Program

#### [P1.54] Optimising the production of β-casein and co-products during membrane fractionation
S.V. Crowley*, M. Molitor, M.R. Etzel, R. Kalscheuer, Y. Lu, A.L. Kelly, J.A. O’Mahony, J.A. Lucey

1University College Cork, Ireland, 2Wisconsin Center for Dairy Research, USA, 3University of Wisconsin-Madison, USA

#### [P1.55] Properties of proteins found in different whey streams
M. Nishanthi, J. Chandrapala, T. Vasiljevic
Victoria University, Australia

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**Posters of Young Scientists Presentations will be presented as follows:**

**Poster session 1 on Wednesday 30th September 2015 at 12:30 - 14:00 – YSPO1, YSPO3, YSPO5**

**Poster session 2 on Thursday 1st October 2015 at 12:30 - 14:00 – YSPO2, YSPO4, YSPO6**

#### [YSPO1] Influence of shortening or omitting the dry period of the dairy cow on casein composition of milk
R.F.M. de Vries*1,2, A.T.M. van Knegsel1, M. Johansson1, H. Lindmark-Mansson1, A.C.M. van Hooijdonk2, K. Holtenius1, K.A. Hettinga2

1Swedish University of Agricultural Sciences, Sweden, 2Wageningen University, The Netherlands

#### [YSPO2] Caseinomacropeptide affects the functional properties of WPC
S. Svanborg*1,2, A.G. Johansen1,2, R.B. Schüller1, R.K. Abrahamsen1, S.B. Skeie et al

1University of Life Sciences, Norway, 2TINE SA, Norway

#### [YSPO3] Reaction kinetics of heat-induced aggregation in skim milk concentrates: Comparison of lab-scale indirect heating and direct steam injection
J. Dumpler*, U. Kulozik
Technische Universität München, Germany

#### [YSPO4] High pressure - low temperature treatments as a tool for milk protein modification
D. Baier*1, C. Schmitt1, C. Rauh1, D. Knorr1

1Technische Universität Berlin, Germany, 2Nestlé Research Center, Switzerland

#### [YSPO5] Evaluation of whey protein-maltodextrin conjugates as emulsifiers in model hydrolysed infant formula emulsions
K.P. Drapala*, D.M. Mulvihill, S.A. O’Mahony
University College Cork, Ireland

#### [YSPO6] The effect of spray drying parameters on the flavor of milk protein concentrate and whole milk powder
C.W. Park*, M.A. Drake
North Carolina State University, USA