



Restituto Tocmo

Technology Centre:	Food for Health Ireland
Academic Mentor:	Professor Christine Loscher
Company Partner:	Glanbia Ireland
Company Mentor:	Dr. Michelle Collins

Dr. Tocmo completed his PhD (2017) in Food Science at the National University of Singapore (Singapore), MSc (2012) in Food Science at Cornell University (USA), and BSc (2007) in Food Technology at the University of the Philippines Mindanao (Philippines). Dr. Tocmo worked as an Instructor at the Department of Food Science, University of the Philippines in 2008 to 2010. He conducted postdoctoral research at the University of Wisconsin-Madison (2016-2019) and at the University of Illinois at Chicago (2019-2021).

Professor Christine Losher

Professor Christine Loscher completed her PhD in Immunology at NUI, Maynooth in 2000 and was awarded a Health Research Board Fellowship to pursue her postdoctoral studies at Trinity College Dublin. In 2003 she moved to the Institute of Molecular Medicine at St James Hospital to continue her research and then was appointed to a permanent academic position at Dublin City University in 2005. She leads the Immunomodulation Research Group at DCU which has a focus on translating how modulation of the immune response has health benefits. Her focus includes discovering new anti-inflammatory/anti-allergic compounds and ingredients that can be used in the pharma and food industry. She is a Principal Investigator in the Food for Health Ireland Technology Centre and she has developed significant expertise in commercial research and industry engagement, securing over €5.5M in external funding for her research. In 2014 she was named in Silicon Republics top 100 Women in STEM and in 2015 she was a speaker at InspireFest. In 2016 she delivered a TEDx talk to communicate her views on the Future of Food and in 2018 she was included in Silicon Republic's "22 high-flying scientists making the world a better place in 2019". She is currently the Associate Dean for Research in the Faculty of Science & Health at DCU.

Dr. Michelle Collins

Michelle Collins is a passionate food industry professional with over 20 years' experience working in academia and the food and drink sector. A member of Glanbia Ireland's Senior Leadership Group she is accountable for Nutrition and Sustainability Innovation at Glanbia Ireland. Michelle also has responsibility for establishing strong partnerships with the external ecosystem nationally and internationally with the objective to leverage this network to support and drive Glanbia Ireland's innovation and sustainability strategy. Through her leadership, Glanbia Ireland has established strong relationships and partnerships within Ireland in academia, research institutes, independent consultants, Enterprise Ireland Technology Center, and Science Foundation Ireland Centre's and are consortia partners in H2020 programmes. Michelle is a member of the Centre Steering Committee in Food for Health Ireland and a member of the Technical Steering Group for the Dairy Processing Technology Centre. She is a Director on the Board of the Irish Bioeconomy Foundation, the Biobased Industries Consortium and Kilkenny Industrial Development Co Ltd. Michelle has completed the University of Cambridge Business Sustainability Management course. Prior to joining Glanbia Ireland Michelle worked with Coca-Cola where she spent nine years in various roles in R&D. She holds a PhD in Food Science from the University of Reading, a Masters with Distinction in Food Biotechnology and a Bachelor Degree in Biological Sciences from the University of Ulster.

Glanbia Ireland

Glanbia Ireland is an ambitious, integrated agri-food and nutrition business, with a diverse portfolio of quality ingredients, leading consumer and Agri brands. Glanbia Ireland owns leading consumer and Agri brands such as Avonmore, Kilmeaden Cheese, Millac, Premier Milk, Wexford, mymilkman.ie, Glanbiaconnect.com, Countrylife.ie and GAIN Animal Nutrition. It processes over 3 billion litre milk pool from 21 counties and exports high quality dairy and agri ingredients as well as branded products to over 100 countries. Glanbia Ireland is the largest buyer and user of Irish grains, with a state-of-the-art oats processing facility. Glanbia Ireland is a joint venture, 60% is owned by Glanbia Co-op and 40% is owned by Glanbia plc. With annual revenue of €1.96 billion, Glanbia Ireland has 11 processing plants, 52 agri branches and over 2,000 employees.

Food for Health Ireland (FHI)

Food for Health Ireland's (FHI) goal is to enhance health and wellbeing through innovation in food. By combining world-class science with industry expertise, we ensure our industry members stay ahead in the global food market. We have spent more than a decade cultivating an Innovation Ecosystem across Ireland that now brings together leaders in food and health research, industry, policy, marketing and investment. Now in the third phase of our research development, FHI is continuing to improve health through innovation in food. FHI has already successfully placed 12 fellows on this prestigious programme.

Host Institution - Dublin City University (DCU)

Dublin City University (DCU), Ireland's University of Enterprise, is a globally renowned university which has ranked in the top1.5% of universities in the world and is consistently ranked among the top young universities globally (2020 QS Top 70 under 50; 2019 Times Higher Top 100 under 50). DCU has recently been named Sunday Times 'University of the Year' for the third time (2004, 2010, 2021). It is a University with a high research output, which promotes world class excellence and innovation, investing considerable amounts of its resources in the development of research infrastructure. Competitively won research funding, for the period 2013-2019 was in excess of €250 million. The fellowship will be carried out within the School of Biotechnology which has an established expertise across a broad range of scientific disciplines, thereby enabling highly interdisciplinary and innovative approaches to research.

Restituto's project

“Novel ingredients as functional foods to improve immune health”

Building on previously completed research projects which have focused on the characterisation and validation of immune-modulating bioactives isolated from milk protein, this project investigates a wide range of protein sources for novel food ingredients that can modulate the immune system. Our previous focus has been on bioactives which can suppress inflammation and allergic responses, however given the growing importance of strong immune health, this project will explore the effects of novel bioactives for improving overall immune function. This includes immune responses to both viruses and bacteria as well as immune balance which influences overall health.

During this project we aim to identify from a range of protein sources from our commercial partner (Glanbia Ireland), some novel bioactives which have the potential to be food ingredients. The project will provide initial proof of principle of the effects of these novel bioactives in the immune system in preclinical models. Based on the outcomes of the research, we will assess the commercial viability of using candidate novel bioactives.

