World class expertise in the microbiology, safety, chemistry and structure of food at Glasgow Caledonian University is regularly called on by corporate and public sector organisations.

Glasgow Caledonian is the only university in the UK to have a United Kingdom Accreditation Service (UKAS) accredited laboratory. Specialist equipment includes dedicated instrumentation which allows for the rapid detection and classification of bacteria relevant to food safety.

HEALTH-CONSCIOUS CONSUMERS ARE DEMANDING MORE INFORMATION ABOUT WHAT IS IN THEIR FOOD. THOUGH SAFE INGREDIENTS IN FOOD AND DRINK OFTEN INCLUDE ADDITIVES, PRESERVATIVES AND CHEMICALS, A LIST OF SUCH INGREDIENTS IS NOW MORE LIKELY TO PUT CONSUMERS OFF AND FOOD COMPANIES ARE CHALLENGED TO CREATE HEALTHIER PRODUCTS WITH LONGER SHELF LIVES.

The University’s food analysis services are used by many blue chip companies and SMEs which rely on effective and efficient sampling and analysis.

Within Glasgow Caledonian University’s School of Health and Life Sciences, research and consultancy projects span food microbiology and food safety, food chemistry and food structure, and the analysis of carbohydrates and starch. Recent consultancy projects include analysis of levels of preservatives such as sorbic acid and sulphur dioxide and microbiological evaluation of bacteria in samples of food. Significant work is undertaken in assisting food and drink companies extend the shelf life of their products through improvements to the factory production process advised by longer term microbiological analysis of samples.

In addition to consultancy work, the team provides professional courses in food safety for companies leading to certification from the Royal Environmental Health Institute of Scotland (REHIS).
Professors Kofi Aidoo and Richard Tester support small and medium sized enterprises (SMEs) with advice and analysis on nutrition and dietetics, shelf-life testing and food safety and hygiene. Research topics in the department include fungi and microbial toxins in food, food fermentations, food-borne pathogens, structure and functionality of carbohydrates, environmental effects on carbohydrate biosynthesis, and food and pharmaceutical applications of carbohydrates. Work has led to the formation of industrial products, patents and ventures. Glycologic Ltd is a resultant specialist spin-out company focusing on carbohydrate-based drug delivery.

GCU is a member of EU Tempus funded project “Improving Academia – Industry Links in Food Safety and Quality” and, as part of an EU Lifelong Learning Programme, has links with Amsterdam University of Applied Sciences.

GCU also has experience of working on several Knowledge Transfer Partnerships (KTPs) with companies in the food and drinks sector, including with Agrico, Macphie and The Natural Fruit and Beverage Company. Knowledge Transfer Partnerships help businesses to improve their competitiveness and productivity by accessing the knowledge, technology and skills that reside within the UK’s Universities. GCU’s KTP work with Agrico aimed to support the development of novel potato genotypes with specific nutritional properties.

Through an SFC Innovation Voucher project, GCU is working with PAWSitively Natural to help bring its range of natural dog treats to market. The innovative company is using GCU’s UKAS-accredited food labs for nutritional analysis to help it introduce new beneficial ingredients such as seaweed to the treatments and to extend the shelf life of the product. GCU is analysing the product both with and without natural preservatives to assess the effect on shelf life. The company is also aiming to use ethical packaging. PAWSitively Natural’s dog treats are made using only wheat and gluten free flour and fresh ‘human grade’ ingredients and aims to produce products which benefit dogs with medical conditions.

GCU's KTP work with Agrico aimed to support the development of novel potato genotypes with specific nutritional properties. Professor Aidoo has been appointed to sit on the Joint FAO/WHO Expert Committee on Food Additives (JECFA), the international scientific expert advisory board administered by the UN Food and Agriculture Organisation and the World Health Organisation. The influential body has been meeting since 1956 to evaluate the safety of food additives and its work now also includes the evaluation of contaminants, naturally occurring toxicants and residues of veterinary drugs in food.

Professor Aidoo’s four-year appointment to JECFA will bring a raft of benefits to students at GCU as well as helping to enhance food safety standards internationally.

He said: “I have always ensured that our students are exposed to real-life situations in our lab and teaching facility, which is the only UKAS facility in a University of its type in Britain. We can’t live without food but, as much as it provides nourishment and what we need for growth, there are major issues surrounding food which lead to serious health issues such as food poisoning and food-borne diseases.”

At Glasgow Caledonian University, we work with industry and public sector partners to ensure our expertise responds to the need for real-world innovation. GCU’s strategic business development and knowledge transfer teams work with academic experts in our Schools and Research Institutes to support businesses with a problem-solving approach.

Contact us to find out more about building a brighter future with GCU at www.gcu.ac.uk/business.

FURTHER INFORMATION:
Professor Kofi Aidoo
Professor Richard Tester
School of Health and Life Sciences
Glasgow Caledonian University

k.aidoo@gcu.ac.uk  0141 331 8014
r.f.tester@gcu.ac.uk  0141 331 8514

www.gcu.ac.uk/hls