CURRICULUM VITAE

April 2018

Title and name
Dr Laurence Castle

Nationality
British

Panel / Scientific Committee
Panel on Food Additives and Flavourings (FAF)

Education

DPhil in Chemistry, 1979, University of York, UK
Bachelor in Chemistry with Education, 1976, University of York, UK

Work Experience

2015 – present	None	Retired. Retired from the UK Scientific Civil Service on 31 March 2015.
1986 – 2015	The Food and Environment Research Agency (FERA), York, UK.	UK Scientific Civil Service. I joined the Food Science Lab in 1986 which over the years was relocated and reorganised into the Central Science Lab and then into The Food & Environment Research Agency. I was active in research and surveillance in several areas of food chemical safety, including food contact materials, food processing contaminants, food additives, mycotoxins, nanomaterials, and tools to estimate consumer exposure. My work at FERA culminated in being head of a research group. Our scientific work themes included; (i) the analysis of samples for known chemical risks, (ii) the profiling of complex mixtures, (iii) the detection and identification of unknown substances that may be deleterious or beneficial to health, (iv) the mechanisms of formation and occurrence of such substances during food production and processing, (v) the authenticity of foods, (vi) assessment of human exposure, (vii) (Q)SAR analysis, and, (viii) human risk assessment.
1984 – 1985	University of London, Royal Holloway and Bedford New	Post doctoral researcher. The food additive butylated hydroxyanisole (BHA, E320) as a chain-breaking antioxidant: Determination of the kinetics of action and the formation of

	College, Department of Chemistry, UK	potentially genotoxic oxidation products.
1982 – 1984	Louisiana State University, Department of Chemistry, USA	Post doctoral researcher. (i) The molecular mechanisms of toxin-mediated free-radical damage. (ii) Studies in vitro of the environmental pollutant nitrogen dioxide and its reactions with lung constituents to form free-radicals. (iii) Red rice (*Oryza sativa* L.) and the mode of action of dormancy-breaking chemical agents.
1980 – 1981	University of Saarlande, Department of Physiological Chemistry, FRG	Post-doctoral researcher. (i) Model systems for drug and xenobiotic metabolism. (ii) The active oxidant(s) generated at the catalytic centre of cytochrome P450 from dioxygen and from several surrogate oxidants. (iii) Investigation into the involvement of cytochrome P450 in the biosynthesis of prostacyclin and thromboxane.

Scientific expertise

Analytical Chemistry
Organic Chemistry
Inorganic Chemistry
Environmental Exposure, Fate and Behaviour of Chemicals
Chemical Risk Assessment
Exposure Assessment
Food / Feed Technology

Most relevant scientific publications within the fields of EFSA

Co-author of approximately 225 journal papers and book chapters etc. A selection of 10 of the most recent:-

Bolognesi C, Castoldi AF, Crebelli R, Barthélémy E, Maurici D, Wölfle D, Volk K, **Castle L**, 2017. Genotoxicity testing approaches for the safety assessment of substances used in food contact materials prior to their authorization in the European Union. Environ Mol Mutagen;58(5):361-374. doi: 10.1002/em.22094.

Chaudhry Q, **Castle L**, Watkins R (Editors), 2017. Nanotechnologies in Food. RSC Nanoscience and Nanotechnology Series, No. 42. Royal Society of Chemistry (Cambridge, UK) Second edition, 2017. ISBN978-1-78262-171-3.

Chaudhry Q, **Castle L**, 2015. Safety assessment of nano and microscale delivery vehicles for bioactive ingredients. Chapter 21, pages 348-357 in; Nanotechnology and Functional Foods: Effective Delivery of Bioactive Ingredients. C. Sabliov, H. Chen and R. Yada (Editors). Wiley-Blackwell, June 2015. ISBN: 978-1-118-46220-1.

Driffield M, Bradley E, **Castle L**, Lloyd A, Parmar M, Speck D, Roberts D, and Stead S, 2015. Use of atmospheric pressure solids analysis probe time-of-flight mass spectrometry to screen for plasticisers in gaskets used in contact with foods. Rapid Commun. Mass Spectrom., 29: 1603–1610. doi: 10.1002/rcm.7255.

Barthélémy E, Spyropoulos D, Milana MR, Pfaff K, Gontard N, Lampi E, **Castle L**, 2014. Safety evaluation of mechanical recycling processes used to produce polyethylene terephthalate (PET) intended for food contact applications. Food Addit Contam Part A Chem Anal Control Expo Risk Assess;31(3):490-7. doi: 10.1080/19440049.2013.871755.

Oldring PK, **Castle L**, O'Mahony C, Dixon J, 2014. Estimates of dietary exposure to bisphenol A (BPA) from light metal packaging using food consumption and packaging usage data: a refined deterministic approach and a fully probabilistic (FACET) approach. Food Addit Contam Part A Chem Anal Control Expo Risk Assess;31(3):466-89. doi: 10.1080/19440049.2013.860240.

Driffield M, Speck D, Lloyd AS, Parmar M, Crews C, **Castle L**, Thomas C, 2014. Methods of analysis for 2-dodecylcyclobutanone and studies to support its role as a unique marker of food irradiation. Food Chem;146:308-13. doi: 10.1016/j.foodchem.2013.09.046.

Dorne JL, Doerge DR, Vandenbroeck M, Fink-Gremmels J, Mennes W, Knutsen HK, Vernazza F, **Castle L**, Edler L, Benford D, 2013. Recent advances in the risk assessment of melamine and cyanuric acid in animal feed. Toxicol Appl Pharmacol;270(3):218-29. doi: 10.1016/j.taap.2012.01.012.

Bradley EL, Burden RA, Bentayeb K, Driffield M, Harmer N, Mortimer DN, Speck DR, Ticha J, **Castle L**, 2013. Exposure to phthalic acid, phthalate diesters and phthalate monoesters from foodstuffs: UK total diet study results. Food Addit Contam Part A Chem Anal Control Expo Risk Assess;30(4):735-42. doi: 10.1080/19440049.2013.781684.

Anderson WA, **Castle L**, Hird S, Jeffery J, Scotter MJ, 2011. A twenty-volunteer study using deuterium labelling to determine the kinetics and fractional excretion of primary and secondary urinary metabolites of di-2-ethylhexylphthalate and di-iso-nonylphthalate. Food Chem Toxicol;49(9):2022-9. doi: 10.1016/j.fct.2011.05.013.