



Exponent[®]
Engineering & Scientific Consulting

Rachel Ward, Ph.D., FIFST

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Professional Profile

Dr. Ward is a highly experienced risk management advisor and technical counsel with 25+ years' experience in the food sector working with multinational food manufacturers and retailers, University spin outs and SME start-ups. She has a proven track record delivering across complex global multidisciplinary stakeholders and supply chains, and leading collaborations with government and industry bodies to achieving effective outcomes.

Dr. Ward spent 15 years working as scientific affairs and risk manager lead in Europe with a major blue-chip multinational food manufacturer, leading liaison with trade bodies and regulators on food risk management and providing expert in-house support to procurement, operations quality and R&D colleagues. Since 2012, she has worked as a freelance consultant facilitating regulatory classification of borderline products and building risk management models for UK food operators, whilst also working for the UK Institute of Food Science and Technology as their Scientific Policy Director supporting professional body members and wider stakeholders in the UK with impactful translation of science, regulatory developments and emerging issues. Since 2021, Dr. Ward has been a member of our Exponent International food group.

Dr. Ward has an in-depth understanding of the food system and has been closely involved in the risk assessment and risk management of food incidents such as semicarbazide migration from food jar plastic seals in 2003, Sudan I adulteration of spices in 2005, and mineral oil adulteration of sunflower oil in Ukraine in 2017. She has prepared reports to advise UK research funding bodies on the working of the food system to advise their funding strategy. She has also been responsible for horizon scanning for emerging issues and potential risks, representing European food trade bodies in EFSA emerging risks discussion groups and invited as an expert to UK national horizon scanning exercises. In addition, she has designed risk management models for manufacturers and retailers to incorporate intelligence such as emerging issues, supply chain incidents and recalls, regulatory requirements and expected best practices into practical approaches to effectively support both consumer risk protection and business freedom to operate.

Dr. Ward has expertise in allergen risk assessment and risk management. As such she has been an invited chair in trade body committees and multiple scientific conferences, an invited speaker to industry conferences and an invited expert on government and patient charity advisory groups. She also frequently provides training on allergen risk management to food sector organisations.

Academic Credentials & Professional Honors

Ph.D., Cellular Toxicology, University of Nottingham, UK, 1994

B.Sc., Applied Biochemistry, Liverpool Polytechnic, United Kingdom, 1989

Licenses and Certifications

CIEH Assured Level 3 Managing HACCP for Manufacturing and Retail

Lead Auditor FSSC 22000 food risk management systems

Prior Experience

Science Policy Director, Institute of Food Science & Technology, 2019 - 2021

Scientific and Risk Management Consultant, r.ward consultancy limited, 2012 - 2021

Scientific and Regulatory Affairs Senior Manager, PepsiCo Europe, 1997 - 2011

Post-Doctoral Researcher, University of Nottingham & ECVAM, European Commission JRC, 1994 - 1997

Professional Affiliations

2012 Fellow of the Institute of Food Science and Technology

Publications

Treacy, D., Gilbert-Wood, C., Kerridge, A., Manning, L., & Ward, R. (2021). Food Safety versus Health and safety: Strong alignment or clear blue water? *Food Science and Technology*. V35(4) p15-19
https://doi.org/10.1002/fsat.3504_4.x

Manning, L., Bieniek, M., Kowalska, A., & Ward, R. (2021). Dietary supplements, harm associated with synthetic adulterants and potential governance solutions. *Crime, Law and Social Change*, 1-27.

Littleton, P.; Walker, M. and Ward, R. (2021) Controlling cross-contamination by food allergens. *Food Science and Technology*. v35(2) p47-51 https://doi.org/10.1002/fsat.3502_14.x

Turner, P. J., Andoh-Kesson, E., Baker, S., Baracaia, A., Barfield, A., Barnett, J., ... & O'Brien, J. (2021). Identifying key priorities for research to protect the consumer with food hypersensitivity: A UK Food Standards Agency Priority Setting Exercise. *Clinical & Experimental Allergy*, 51(10), 1322-1330.

Ward, R.K. (2020) Enabling digitisation to reduce risk in the food system *Food Science and Technology* v34(4) p42-45 https://doi.org/10.1002/fsat.3404_12.x

Champion, D., Stevens, B., Ward, R., & Kerridge, A. (2018). Can the 'blockchain' contribute to achieving global food security? A report for the Science and Technology Facilities Council.
<http://irep.ntu.ac.uk/id/eprint/44730/>

Ward, R.K. 'Introduction to food allergy' in Handbook of Food Allergen Detection and Control Ed. Flanagan, S. Woodhead Publishing Series in food Science, Technology and Nutrition: Number 264; Elsevier Inc. ISBN 978-1-78242-012-5 Chp 1, p 1-16, 2014

René W.R. Crevel, Joseph L. Baumert, Stefano Luccioli, Athanasia Baka, Sue Hattersley, Jonathan O'B. Hourihane, Stefan Ronsmans, Frans Timmermans, Rachel Ward, Yong-joo Chung. Translating reference doses into allergen management practice: Challenges for stakeholders. *Food and Chemical Toxicology* 67, 277–287, 2014

Sue Hattersley, Rachel Ward, Athanasia Baka, René W.R. Crevel Advances in the risk management of unintended presence of allergenic foods in manufactured food products – An overview. *Food and Chemical Toxicology* 67, 255–261 2014

Sue Hattersley and Rachel Ward Regulatory Controls for Food Allergens in Risk Management for Food Allergy Eds. Madsen. C.B.; Crevel. R.W.R.; Mills, C.; Taylor, S.L. Elsevier Inc. ISBN 978-0-12-381988-8 Chp 17, p273-290 2014

Madsen, C.B., Hattersley, S., Allen, K.J., Beyer, K., Chan, C.H., Godefroy, S.B., Hodgson, R., Mills, E.N., Munoz-Furlong, A., Schnadt, S., Ward, R., Wickman, M., Crevel, R. Can we define a tolerable level of risk in food allergy? Report from a EuroPrevall/UK Food Standards Agency workshop. Clin Exp. Allergy 42, 30-37, 2012

Chung, YJ; Ronsmans, S; Crevel, RW; Houben, GF; Rona, RJ; Ward, R; Baka, A. Application of scientific criteria to food allergens of public health importance. Regul Toxicol Pharmacol. Nov;64(2):315-23. 2012

Ward, R; Crevel, R; Bell, I; Khandke, N; Ramsay, C; Paine, S. A vision for allergen management best practice in the food industry. Trends in Food Science & Technology, 21, (12), 619-625 2010

Björkstén, B.; Crevel, R.; Hischenhuber, C.; Lovik, M.; Samuels, F.; Strobel, S.; Taylor, S.L.; Wal, J-M.; Ward, R. Criteria for Identifying Allergenic Food of Public Health Importance Regulatory Toxicology and Pharmacology, 51:42-52, 2008

Hischenhuber, C; Crevel, R; Jarry, B.; Maki, M; Moneret-Vautrin, D.A.; Romano, A.; Troncone, R. & Ward, R. Review article: safe amounts of gluten for patients with wheat allergy or coeliac disease. Aliment Pharmacol Ther 23, 559-575 2006

Ward, R.K., Hubbard, A.W., Sulley, H., Garle, M.J. & Clothier, R.H. Human keratinocyte cultures in an in vitro approach for the assessment of surfactant-induced irritation. Toxicology in Vitro 12, 163-173 1998.

Ward, R.K., Nation, P.M., Maxwell, M., Barker, C.L. & Clothier, R.H. Evaluation in vitro of epidermal cell keratinization. Toxicology in Vitro 11, 633-636 1997

Clothier, R.H., Beed, M., Samson, R. & Ward, R. An in vitro approach to the evaluation of repeat exposure in the prediction of toxicity. Toxicology in Vitro 11, 679-682 1997

Fentem, J.H., Cooper, A., Ward, R.K., Willshaw, A. & Balls, M. In vitro toxicology studies with human keratinocytes. Comments in Toxicology 5, 225-246 1995.

Gottschalk, U., Garnett, M. C., Ward, R. K., Maibücher, A., & Köhnlein, W. (1991). Increased serum stability and prolonged biological half-life of neocarzinostatin covalently bound to monoclonal antibodies. The Journal of Antibiotics, 44(10), 1148-1154.

Kimber, I., Bentley, A. N., Ward, R. K., Baker, D., & Turk, J. L. (1990). Antigen-restricted antigenic competition induced by 2, 4-dinitrochlorobenzene: association with depression of lymphocyte proliferation. International Archives of Allergy and Immunology, 91(3), 315-322.

Kimber, I.; Ward, R.K.; Shepherd, C.J.; Smith, M.N. & McAdam, K.P.W.J. Acute phase proteins and the serological evaluation of experimental contact sensitivity in the mouse. Int. Arch. Allergy Appl. Immunol. 89, 149-55 1989

Advisory Appointments

STFC Food Network 2.0, UK Steering Committee member 2020 - present

University of Exeter, UK Covid-19 Food systems impacts Expert Panel 2020 - 2022

Chair Fresenius Conference on Food Allergy 2015 & 2018

Chair Food Allergy Seminar Campden BRI 2016 and 2017

Pre-2012:

Chair ILSI Europe expert group on scientific criteria for allergens of public health importance; Industry expert on UK Anaphylaxis Campaign Technical Advisory Board.

Chair FoodDrinkEurope expert group on allergen risk management

Chair FoodDrinkEurope cross-supply chain steering group on mycotoxins

FoodDrinkEurope industry representative to EFSA Emerging Risks Stakeholder Group, to EC SCOPAFF on contaminants and to Codex Alimentarius on process contaminants

Chair UK Food and Drink Federation Allergen steering group

Chair European Snacks Association / European Potato Processors Association process contaminants expert group