

## **CV: PROFESSOR JOYCE TAIT, CBE, FRSE, D.UNIV(OPEN), PHD., BSc (HONS)**

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### **Career Overview**

With an interdisciplinary background, covering both natural and social sciences, I have specialised in innovation-governance-stakeholder interactions in life science and related areas, including cell therapies and regenerative medicine, synthetic biology and gene editing, pesticides and GM technologies, drug development, stratified and translational medicine, and biofuels, and most recently quantum technologies and in silico models. Examples include:

- strategic and management decision making in companies and public bodies
- policy analysis, risk assessment and regulation
- stakeholder attitudes, science and risk communication
- responsible innovation
- circular economy sustainable development
- conduct and evaluation of interdisciplinary research

### **Education and Qualifications**

BSc (first class honours) in Pharmaceutical Chemistry, Glasgow University (T. and H. Smith Prize for Pharmaceutical Chemistry), 1959.

PhD, Department of Land Economy, University of Cambridge, *Factors Affecting the Production and Usage of Pesticides in the UK*, 1976.

### **Honours**

2009 Honorary Doctorate, Open University

2006 Fellow of the Royal Society of Edinburgh

2005 CBE for services to social science

2005 Fellow of the Society for Risk Analysis

### **Employment**

2007 - present	The University of Edinburgh, Professor and Director/Co-Director, Innogen Centre/Institute
2002 – 2007	The University of Edinburgh, Professor and Director, Innogen Centre
1998 – 2002	The University of Edinburgh, Visiting Professor, then Professorial Fellow and Director, Scottish Universities Policy Research and Advice (SUPRA) Network
1992 – 2002	Visiting Professor, Centre for Technology Strategy, Open University.
1992 – 96	Deputy Director, Research and Advisory Services, Scottish Natural Heritage (Civil Service Grade 6).

- 1991 – 92 Professor of Business Administration: Environmental and Technology Management, Strathclyde Graduate Business School, University of Strathclyde.
- 1979 – 91: Lecturer, then Senior Lecturer, Systems Department, Technology Faculty, Open University.

### **Selected External Appointments**

- 2024 – 2025 Member, Engineering Biology Responsible Innovation Advisory Panel (RIAP)
- 2023 – 2024 Member, OECD Global Forum on Technology, Synthetic Biology Expert Focus Group.
- 2023 – 2024 Member, UK Government Biosecurity Leadership Council.
- 2022 – 2023 Member, External Reference Group for the British Academy Project on Science, Trust and Policy Making, initiated by the Prime Minister’s Council for Science and Technology.
- 2020 – ongoing Member, Regulatory Horizons Council (UK Government – DSIT)
- 2020 – 2021 Member, BEIS Bioeconomy Strategy Working Group - Business Environment
- 2020 – 2022 Member, Agri-EPI Centre, Agricultural Production Task Force – Innovation Group.
- 2019 - ongoing Member, Life Sciences Scotland Triple A (Animal Health, Aquaculture and Agribusiness) Subgroup, Life Sciences Scotland.
- 2018 – 2020 Member, UKRI/BBSRC Transforming Food Production Advisory Group
- 2017 - 2020 Member, Prime Minister’s Council for Science and Technology.
- 2017 – 2018 Member, UK Higher Education Funding Bodies Interdisciplinary Research Advisory Panel.
- 2017 – 2021 Member, Governing Board, Industrial Biotechnology Innovation Centre
- 2016 – ongoing Member, EPSRC Peer Review College.
- 2015 – 2016 Member, US National Academy of Sciences/National Research Council Committee on Re-Programming Non-Human Populations using Gene Drives: Recommendations for Responsible Conduct of Research
- 2014 – 2015 Member, ESRC/Research Councils UK Working Group on “Antimicrobial Resistance – Setting the Social Science Agenda” and “Scoping Workshop on Antimicrobial Resistance”.
- 2013 – 2014 Member, Scottish Science Advisory Council Working Group on Synthetic Biology
- 2012 – 2024 Member (and Chair of Governance Subgroup), *Synthetic/Engineering Biology Leadership Council*, UK Government Department for Business, Energy, Innovation and Skills (BEIS).
- 2012 – 2014 Member, Department of Health *Emerging Science and Bioethics Advisory Committee*, and Chair of its Regulation Subgroup.
- 2012 – 2015 Adviser, Technology Strategy Board, development of its Synthetic Biology Responsible Innovation Framework.

2009 – 2012	Member, Advisory Board, BEST Stem Cells Project (Biochemically Equivalent Substitutive Technology), EU FP7 Project, Theme - Health.
2009 – 2010	Member, UK Food Standards Agency Steering Group on UK GM Dialogue, 2010.
2009 – 2011	Chair, Nuffield Council on Bioethics Working Party on <i>Biofuels – Ethical Issues</i>
2008 – 2010	Trustee, Scotland Foundation, Royal Society of Edinburgh
2008 – 2020	Board Member, Roslin Foundation Board
2007 – 2014	Austrian Academy of Sciences, member Scientific Advisory Board, Institute of Technology Assessment, Vienna.
2006 – 2008	Member, Governing Council, Roslin Institute
2004 – 2012	Member, Scientific and Technical Council, International Risk Governance Council (IRGC), Geneva
2004 – 2009	Member, Scottish Science Advisory Council
2003 – 2012	Board Member, Scottish Stem Cell Network
2003 - 2004	Member of the Sustainable Food and Farming Research Priorities Group, DEFRA
2002 – 2003	Member, Industry and Science Expert Group, UK Government Cabinet Office Strategy Unit Study on Costs and Benefits of GM Crops
2001	Independent Expert, OECD Environmental Performance Review of the UK, recruited by DEFRA.
2001 – 2002	Member, European Union Expert Panel on Regional Technological Development
1999 – 2002	Member, UK Forestry Commission Advisory Panel and Chair of its Environment Sub-committee; also member of the Steering Group for the Forest Research Quinquennial Review.
1999 – 2001	President, Society for Risk Analysis - Europe
1998 – 2002	Member, European Commission Fifth Framework Programme External Advisory Group for Key Action 5, Sustainable Agriculture, Fisheries and Forestry, including integrated development of Rural Areas
1992 – 1996	Member of NERC Terrestrial and Freshwater Science and Technology Board; also member of the Board's Strategy Group

### **Research and Consultancy Grants (since 1998)**

Tait, J. and Raybould, A. (2021) Fish farming in Scotland: optimising its contribution to climate change mitigation. Funded by the Open University, £7,500.

Raybould A. and Tait, J. (2020-22) *REACT-FIRST (Reduced Emission Aquaculture and Chicken Trial for Integrated, Responsible and Sustainable Transformation of CO<sub>2</sub> into Animal Feed)*. Funded by ISCF Future Food Production Systems, lead applicant Deep Branch Biotechnology Ltd. £2.18m, Innogen contribution, £120K.

Tait, J. (2020) *Mapping Edinburgh BioQuarter's Innovation Ecosystem and Developing Strategic Principles for its Innovation Strategy*, funded by Edinburgh University, £20,640

Tait J. (2019-20) PI, *Structure-Function Analysis of SEFARI*. Scottish Government Environment and Forestry Directorate, £98,127.

Tait, J. (2019-20) *Development of a Publicly Available Standard (PAS) for Responsible Innovation*, (Consultancy Contract) Innovate UK/British Standards Institution, £21,000.

Bruce, A. and Tait, J. (2017-2021) *Diagnostic Innovation and Livestock (DIAL)* Led by University of Exeter. ESRC Total grant £1,715,098; Innogen Institute component, £550,836.

Tait, J. (2016-17) *Proportionate and Adaptive Governance of Innovative Technologies (PAGIT)*. BEIS/British Standards Institution, £50,000; ESRC Impact Grant, £19,480.

Tait, J. (with G. Banda) (2015-16) *Standards and Regulation to Support Successful Innovation*. British Standards Institution, £29,660.

Tait, J. (2016). Report on *Environmental Regulation of Synthetic Biology: Anticipating future regulatory oversight*. Funded by Scottish Environmental Protection Agency, £7,200.

Tait, J. (2015) *Responsible Research and Innovation in the Engineering of Mammalian Systems*, (Co-PI with Jane Calvert) on the Synthetic Biology Research Centre programme, PI Prof. Susan Rosser, CSE, funded by BBSRC/EPSRC/MRC, Innogen award £530,393.

Tait, J. (2014) *Independent Review on Antimicrobial Resistance: Potential to change the regulatory system*. Funded by ESRC on behalf of the O'Neill Review. £39,769.

Tait, J. (2014-17) (with James Mittra). *Regenerative medicine and its development and implementation: an analysis of emergent value systems and health service readiness*, funded by ESRC. PI Andrew Webster, York University. Total award, £1.5M, award to Edinburgh, £315,430.

Tait, J. (with Castle, D) (2013-14) *Regenerative Medicine Business Models, Venture Capital and the Funding Gap* Funded by ESRC, £64,480.

Tait, J. (2013-18) (Co-I; University of Edinburgh School of Engineering). *Implantable Microsystems for Personalised Anti-Cancer Therapy (IMPACT)*, funded by EPSRC, £4.2M. Total to Innogen Institute, £267,154.

Tait, J. (1/4/13 – 30/12/13) (Co-I; PI David Wield) *Science and Industrial Dynamics of the Scottish Independence Debate*. ESRC, £36,737

Tait, J. (2012-13) (with J. Mittra and M. Mastroeni). *Engaging with Uncertainty and Risk in Agricultural Biotechnology Regulation: Delivering Safety and Innovation*, jointly funded by ESRC and Syngenta, £40,000.

Tait, J. (2011-12) (with D. Castle and A. Bruce) Partners in DEFRA-funded project, *Integrated Advice Pilot Project*, along with ADAS, AHDB and RAND Europe; Edinburgh University Innogen Centre component, £108.5K

Tait, J. (2010-11) Technology Strategy Board and Economic and Social Research Council. *A Therapy Realization Pathway Tool (TRPT) applied to three representative regenerative medicine therapeutic products (REALISE)*, £154,000

Tait, J. (2009) International Risk Governance Council. *Risk Governance of Synthetic Biology*. SFR 40,000.

Tait, J. (2007-2008) Economic and Social Research Council, with the UK Department of Health and Governments of Wales and Northern Ireland), *Behavioural Responses to Pandemic Influenza in the UK*. £337,000 (with Professor Tony Barnett, LSE.)

Tait, J. (June-Dec. 2007) Organisation for Economic Co-operation and Development (OECD), *BioEconomy to 2030 Project – Health Biotechnologies*, 13,626 Euros

Tait, J. (Oct. 2007-Mar 2014) Innogen Centre Core Grant, (ESRC), £5.2 million (with Robin Williams and David Wield).

Tait, J. (July 2006-March 2009) EC Framework 6 grant, *Riskbridge (Building Robust Integrative Interdisciplinary Governance Models for Emerging and Existing Risks)*. (£57,112)

Tait, J. (April-Dec. 2006) European Techno-Economic Policy Support Network (ETEPS) *Lead, Work Package 2, Consequences, Opportunities and Challenges of Modern Biotechnology for Europe – Primary Production, Agro-food*. 80,000 Euros.

Tait, J. (March-Nov. 2005) European Science and Technology Observatory (ESTO) *Animal Cloning and Genetic Modification – A Prospective Study*, £15,867

Tait, J. (Jan-Sept. 2005) UK Office of Science and Technology Foresight Project on Detection and Identification of Infectious Diseases. *Project Lead for Work Package A, The Evaluation of Future Risks*, £159,000

Tait, J. (Nov.-Dec. 2004) UK Office of Science and Technology Foresight Project on Detection and Identification of Infectious Diseases. *Project Lead for Work Package A, The Evaluation of Future Risks*, £11,050

Tait, J. (Sept. 2004-Dec. 2007) The Role of Venture Capital in Promoting High Tech and Science-Based Growth: a New Rationale for European Policy Making. *EC PRIME Network of Excellence Project*. 16,400 Euros.

Tait, J. (Oct. 2003-Sept. 2006) 21<sup>st</sup> Century Genetic Health (21CGH) *SHEFC Research Development Grant* (Principal Investigator Professor David Porteous), £121,940 (Innogen Centre component) (with Sarah Cunningham Burley).

Tait, J. (April 2003-March 2005) Biotechnology Clusters in Scotland. *Scottish Enterprise Research Fellowship*, £60,000.

Tait, J. (Oct. 2002-Sept. 2007) *Innogen: Centre for Social and Economic Research on Innovation in Genomics*, Economic and Social Research Council, £2,061,228 (with Robin Williams and David Wield)

Tait, J. (Jan.-Sept. 2002) *Scottish Agricultural and Biological Research Institutes and Research Organisations Assessment Exercise: Assessment of End Use Relevance*. Scottish Executive Environment and Rural Affairs Department, £86,000 (with John Fern, Catherine Lyall and Ann Bruce)

*The Precautionary Principle: its Relevance and Application to the Work of SEPA*. Scottish Environmental Protection Agency, £5000.

*Peoples' Values in Relation to Chemicals and Risk Assessment and Regulation*, Royal Commission on Environmental Pollution, £11,892

Tait, J. (Sept. 2001-Nov. 02) *Integrating Technological and Social Aspects of Foresight in Europe (ITSAFE)*, EC 5<sup>th</sup> Framework Programme, STRATA, 225,000 Euros (with Robin Williams)

Tait, J. (Oct. 2000-Sept. 2002) *Interdisciplinary Integration in the Fifth Framework Programme*, Accompanying Measure, Funded by EC 5<sup>th</sup> Framework Programme, 200,000 Euros (with Robin Williams)

*Investigation into ESRC Funded Interdisciplinary Research*, Economic and Social Research Council, £12,302 (with Catherine Lyall)

*Roadmapping Foresight: Monitoring and Evaluation of Complex Programmes*, UK Office of Science and Technology, £8,000

*European Fifth Framework Programme, Support for UK Social Science Participation in the Key Actions*, funded by ESRC, £37,900 (with Robin Williams).

Scottish Universities Policy Research and Advice Network (SUPRA) Scottish Higher Education Funding Council (SHEFC), 1998-2002, £270,000.

*Policy Influences on Technology for Agriculture (PITA)*, EC 4<sup>th</sup> Framework Programme, Targeted Socio-Economic Research (TSER), 838,000 Euros; joint co-ordinator with D. Wield, Open University. (Jan. 1998-Dec. 2001)

### **PhD Research Supervision.**

*Regulation, Traceability and Stakeholder Engagement for Genome Editing Technology*, Global Academy for Agriculture and Food Systems (GAAFS), Hellen Mbaya (University of Edinburgh, PhD awarded, 2023)

*Interests and Values and their Importance as Motivators in Conflict-Based Stakeholder Interactions in Genomics*, Ann Bruce (Open University, PhD awarded, 2011)

*The contribution of Forestry to Rural Development*, Institute for Studies of Science, Technology and Innovation (ISSTI); CASE Studentship with Forestry Commission, Phoebe Cochrane (University of Edinburgh, PhD awarded 2008)

*Policy Networks for Democratic and Sustainable Land Management*, Sian McGrath, Social Policy (University of Edinburgh, PhD awarded, 2006)

*Scotland's Science Strategy*, Catherine Lyall, Research Centre for Social Sciences (University of Edinburgh, PhD awarded, 2005)

### **Teaching and training**

2014-26: Course on *Delivering the Circular Economy and the Bioeconomy* as part of the Innogen Institute MSc in Management of the Bioeconomy, Innovation and Governance. Also single lectures on other course modules.

2026: For Innovate UK and the British Standards Institution, 2 day on-line training course based on BSI PAS 440 Responsible Innovation Guide.

2023: For Innovate UK and the British Standards Institution, 2 day on-line training course based on BSI PAS 440 Responsible Innovation Guide.

### **PUBLICATIONS**

#### **Books**

Lyall, C., Bruce, A., Tait, J. and Meagher L. (2011) *Interdisciplinary Research Journeys: Practical strategies for capturing creativity*. London: Bloomsbury Press.

<http://www.bloomsburyacademic.com/view/Interdisciplinary-Research-Journeys/book-ba-9781849661782.xml> (Paperback edition produced in 2015)

Lyall, C. and Tait, J. (2005) *New Modes of Governance: Developing an integrated policy approach to science, technology, risk and the environment*. Aldershot: Ashgate Publishing Ltd. (e-Book published 2017) <https://doi.org/10.4324/9781315248042>

Cottam, M.P., Harvey, D.W., Pape, R.P. and Tait, J. (2000) *Foresight and Precaution*. Proceedings of ESREL 2000, SARS and SRA-Europe Annual Conference, Edinburgh, Scotland, 15-17 May, 2000; Volumes 1 and 2. Rotterdam: Balkema, pp 1660.

Lane A.B. and Tait, J. (1990). *Practical Conservation: Woodland Management*. Hodder and Stoughton.

Tait, J., Lane, A.B. and Carr, S. (1988). *Practical Conservation: Site Assessment and Management Planning*. Hodder and Stoughton, pp.183. (Foreword by HRH The Prince of Wales).

Tait, J. and Napompeth, B. (eds.) (1987). *Management of Pests and Pesticides: Farmers' Perceptions and Practices*. Boulder, Colorado: Westview Press, pp.244.

## Refereed Journal Articles

- Hoyos Flight, M. and Tait, J. (2024) Capturing carbon to mitigate climate change. *Trends in Biotechnology*. <https://doi.org/10.1016/j.tibtech.2024.09.003>
- Monica Hoyos Flight, Joyce Tait, Theo Chronopoulos, Monica Betancor, Pauline Wischhusen, Emily Burton, Helen Masey O'Neill Kim van der Heul<sup>7</sup>, John Hays and Peter Rowe (2024). Analysing Responsible Innovation along a value chain – a single-cell protein case study. *Engineering Biology*. ID: ENB2\_12031; <https://DOI.org/10.1049/enb2.12031>
- Tait, J., Raybould, A., Flight, M.H. and McGoohan, A. (2023). Circular and Networked Bioeconomies for Net-Zero Food Production: There is Nothing Magic about Circles. *Circ.Econ.Sust.* (2023). <https://doi.org/10.1007/s43615-022-00247-w>
- Bruce, A., Adam, K., Buller, H., Chan, K.W. and Tait, J. (2021) Creating an innovation ecosystem for rapid diagnostic tests for livestock to support sustainable antibiotic use. *Technology Analysis and Strategic Management*, 34:11, 1249-1262. DOI: 10.1080/09537325.2021.1950678
- Tait, J., Brown, A., Cabrera Lalinde, I., Barlow, D., Chiles, M. and Mason P. (2021) Responsible Innovation: Its role in an era of technological and regulatory transformation. *Engineering Biology*, 5, 2-9. DOI: 10.1049/enb2.12005
- Tait, J and Wield, D. (2019) Policy Support for Disruptive Innovation in the Life Sciences. *Technology Analysis and Strategic Management*, 33:3, 307-319. <https://doi.org/10.1080/09537325.2019.1631449>
- Banda, G., Tait, J., and Mittra, J. (2019) Regenerative Medicine and Disruptive Technology: implications for manufacturing and clinical adoption. *Cell and Gene Therapy Insights*; 5(10) 1287-1303.
- Banda, G., Mittra, J. and Tait, J., Watkins, A. and Omidvar, O. (2019) Understanding the emergence and evolution of new business models in the UK regenerative medicine sector. *Technology Analysis and Strategic Management*; <https://DOI.org/10.1080/09537325.2019.1685087>
- Mittra, J., Bruce, A., Scannell, J.W. and Tait, J. (2019) Regulatory and market influences on innovation pathways for the development of new antimicrobial drugs. *Technology Analysis and Strategic Management*. <https://doi.org/10.1080/09537325.2019.1634253> .
- Mastroeni, M., Mittra, J. and Tait, J. (2019): Political influences on biotechnology-based innovation for European agriculture: risk-assessment and risk management, *Technology Analysis & Strategic Management*, DOI: 10.1080/09537325.2019.1573983
- Lyll, C. and Tait, J. (2019) Beyond the Limits to Governance: new rules of engagement for the tentative governance of the life sciences. *Research Policy*, 88(5),1128-1137. <https://doi.org/10.1016/j.respol.2019.01.009>
- Banda, G., Tait, J. and Mittra J. (2018) Evolution of Business Models in Regenerative Medicine: Effects of a Disruptive Innovation on the Innovation Ecosystem. *Clinical Therapeutics*; 40(7); 1084-94. DOI: 10.1016/j.clinthera.2018.06.003.
- Ikegwuonu, T., Haddow, G., Tait, J., Murray, A.F. and Kunkler, I.H. (2018) Horizon scanning implanted biosensors in personalising breast cancer management: first pilot study of breast cancer patients' views. *Health Science Reports*, Vol e30, pp 1-9. DOI: 10.1002/hsr.2.30
- Wintle, B.C. et al. (2017) A transatlantic perspective on 20 emerging issues in biological engineering. *eLIFE* 2017; 6:e30247 DOI:<https://doi.org/10.7554/eLIFE.30247>
- Tait, J. (2017) From Responsible Research (RR) to Responsible Innovation (RI): challenges in implementation. *Engineering Biology*, 1(1), 7-11. DOI: 10.1049/enb.2017.0010

- Mastroeni, M., Omidvar, O., Rosiello, A., Tait, J., and Wield, D. (2017) Science and Innovation Dynamics and Policy in Scotland: the perceived impact of enhanced autonomy *International Journal of Technology Management and Sustainable Development*, 16(1), 3-24. DOI: 10.1386/tmsd.16.1.3\_1
- Wield, D., Tait, J., Chataway, C., Mitra, J., and Mastroeni, M. (2017) Conceptualising and practising multiple knowledge interactions in the life sciences. *Technological Forecasting and Social Change*, 116(3), 308-315 <http://dx.doi.org/10.1016/j.techfore.2016.09.025>.
- Mitra, J., Tait, J., Mastroeni, M., Turner, M., Mountford, J., Bruce, K., (2015) Identifying Viable Regulatory and Innovation Pathways for Regenerative Medicine: A Case Study of Cultured Red Blood Cells, *New Biotechnology*, 32(1), 180-190 DOI: 10.1016/j.nbt.2014.07.008.
- Devos, Y., Sanvido, O., Tait, J. and Raybould, A. (2014) Towards a more open debate about values in decision making on agricultural biotechnology. *Transgenic Research*, 23(6), 933-943. DOI: 10.1007/s11248-013-9754-z
- Bruce, A., Castle, D., Gibbs, C., Tait, J. and Whitelaw, C.B.A. (2013) Novel GM animal technologies and their governance. *Transgenic Research*, 22(4), 681-695. DOI: 10.1007/s11248-013-9724-5
- Mastroeni, M., Tait, J. and Rosiello, A. (2013) Regional Innovation Policies in a Globally Connected Environment. *Science and Public Policy*, 40(1), 8-16. DOI: 10.1093/scipol/scs115  
 Reproduced as: M. Mastroeni *et al.*, (2013) Regional Innovation: How to be Smart, Sustainable and Robust. World Financial Review, May-June, 2013, pp 28-32 ([www.worldfinancialreview.com](http://www.worldfinancialreview.com)).
- Mitra, J. and Tait, J. (2012) Analysing Stratified Medicine Business Models and Value Systems: Innovation-Regulation Interactions. *New Biotechnology*, 29(6), 709-719. DOI: 10.1016/j.nbt.2012.03.003
- Tait, J. (2011) The ethics of biofuels. *Global Change Biology Bioenergy*, 3(3), 271-275. DOI: 10.1111/j.1757-1707.2011.01.1107.x
- Tait, J. (2011) Shaping an ethical future for biofuels. *Bioscience*, 61(9), 653-4.
- Buyx, A.M. and Tait, J. (2011) Biofuels: ethics and policy making. *Biofuels, Bioproducts and Biorefining*, 5(4) 350-351.
- Buyx, A.M. and Tait, J. (2011) Ethical framework for biofuels. *Science*, 332(6029), 540-541. DOI: 10.1126/science.1206064
- Tait, J. and Barker, G., (2011) Global food security and the governance of modern biotechnologies: opportunities and challenges for Europe *EMBO Reports*, 12, pp763-768. <https://doi.org/10.1038/embor.2011.135>
- Mitra, J., Tait, J., and Wield, D. (2011) From maturity to value-added innovation: lessons from the pharmaceutical and agro-biotechnology industries, *Trends in Biotechnology*, 29(3), pp105-109. DOI: 10.1016/j.tibtech.2010.11.004
- Courtney, A., de Sousa, P., George, C., Laurie, G., and Tait, J. (2011) Balancing Open Source Stem Cell Science with Commercialisation, *Nature Biotechnology*, 29(2), Feb. 2011, 115-116. DOI: 10.1038/nbt.1773
- Mitra, J., Tait, J. and Wield, D. (2011) The future of pharmaceutical innovation: new challenges and opportunities. *Innovations in Pharmaceutical Technology*, 29(3), 105-109.
- Smith R., Keogh-Brown, M, Barnett, T. and Tait, J. (2009). The Economy-Wide Impact of Pandemic Influenza on the UK: a computable general equilibrium modelling experiment. *BMJ*; 339: b4571. DOI: 10.1136/bmj.b4571

- Milne, C.P. and Tait, J. (2009) Evolution along the Government-Governance Continuum: FDA's Orphan Products and Fast Track Programs as Exemplars of "What Works" for Innovation and Regulation. *Food and Drug Law Journal*, 64(4), 733-753.
- Tait, J. (2009) Upstream Engagement and the Governance of Science: the shadow of the GM crops experience in Europe. *EMBO Reports*. Vol 10, Special Issue, pp 18-22.  
doi: [10.1038/embor.2009.138](https://doi.org/10.1038/embor.2009.138)
- Orsenigo, L. and Tait, J. (2008) Introduction. *Int J. Biotechnology*, 10(5), 389-403.
- Bower, D.J., Murad, A.N., Sulej, J.C. and Tait, J. (2008) Blazing the trail from stem cell research to regenerative medicine. *Int. J. Biotechnology*, 10(5), 461-475.
- Suk, J.E., Lyall, C. and Tait, J. (2008) Mapping the future dynamics of disease transmission: risk analysis in the United Kingdom Foresight Programme on the Detection and Identification of Infectious Diseases. *Eurosurveillance*, 13(44), Article 7; Euro Surveill. 2008; 13(44): pii=19021.  
[www.eurosurveillance.org/viewarticle.aspx?ArticleId=19021](http://www.eurosurveillance.org/viewarticle.aspx?ArticleId=19021)
- Tait, J. (2007) Systemic Interactions in Life Science Innovation. *Technology Analysis and Strategic Management*, 19(3), 257-277, May 2007.
- Tait, J. and Chataway, J. (2007) The governance of corporations, technological change and risk: examining industrial perspectives on the development of genetically modified crops. *Environment and Planning C: Government and Policy*, 25, 21-37.
- Chataway, J., Tait, J. and Wield, D. (2006) The governance of agro- and pharmaceutical biotechnology innovation: public policy and industrial strategy. *Technology Analysis and Strategic Management*, 18(2), 1-17.
- Chataway, J., Tait, J. and Wield, D. (2004) Understanding company R&D strategies in agro-biotechnology: Trajectories and Blindspots. *Research Policy*, 33/6-7, 1041-1057.  
Reprinted in eds. Maureen McKelvie and Luigi Orsenigo (2006) *The Economics of Biotechnology*. Cheltenham, Glos. Edward Elgar Publishing Ltd., as part of the series International Library of Critical Writings in Economics, editor Mark Blaug.
- Lyall, C., Bruce, A., Firm, J., Firm, M., and Tait, J. (2004) Assessing End Use Relevance of Public Sector Research Organisations. *Research Policy*, 33(1), 73-87. DOI: 10.1016/S0048-7333(03)00090-8
- Lyall, C. and Tait, J. (2004) Foresight in a Multi-level Governance Structure: policy integration and communication. *Science and Public Policy*, 31(1), 27-37.
- Bruce, A., Lyall, C., Tait, J. and Williams, R. (2004) Interdisciplinary Integration in Europe: the case of the Fifth Framework Programme. *Futures*, 36(4), 457-470.  
<https://www.sciencedirect.com/science/article/abs/pii/S0016328703001861?via%3Dihub>
- Tait, J., Chataway, J. and Wield, D. (2002) The Life Science Industry Sector: Evolution of Agro-Biotechnology in Europe. *Science and Public Policy*, 29(4), 253-258.
- Bijman, J. and Tait, J. (2002) Public Policies Influencing Innovation in the Agrochemical, Biotechnology and Seed Industries. *Science and Public Policy*, 29(4), 245-251.
- Tait, J. (2001) Pesticide Regulation, Product Innovation and Public Attitudes. *Journal of Environmental Monitoring*, 3, 64-69.
- Tait, J. (2001) Zeneca Agrochemicals. *AgBioForum*, 4(1), 63-67; [www.agbioforum.org](http://www.agbioforum.org)
- Tait, J. (2001) Science, Governance and Multifunctionality of European Agriculture. *Outlook on Agriculture*, 30(2), pp 91-95.

- Tait, J. and Bruce, A (2001) Globalisation and Transboundary Risk Regulation: Pesticides and Genetically Modified Crops. *Health, Risk and Society*, 3(1), 99-112.
- Tait, J. (2001) More Faust than Frankenstein: the European Debate about Risk Regulation for Genetically Modified Crops. *Journal of Risk Research*, 4(2), 175-189.
- Reprinted in abbreviated form as Joyce Tait, 'The Precautionary Principle for GM Crops' *Agrolinks*, June 2001, Asia Pacific Crop Protection Association, pp 4-6.
- Arundel, A., Hocke, M. and Tait, J. (2000) How Important is Genetic Engineering to European Seed Firms? *Nature Biotechnology*, 18, 578.
- Tait, J. and Morris, D (2000) Sustainable Development of Agricultural Systems: Competing Objectives and Critical Limits. *Futures*, 32, 247-260.
- Tait, J., Chataway, J. and Wield, D. (2000) The Life Science Industry Sector: Evolution of Agro-biotechnology in Europe. *Science and Public Policy*, 29(4), 253-258.
- Tait, J. and Williams, R. (1999) Policy Approaches to Research and Development: Foresight, Framework and Competitiveness. *Science and Public Policy*, 26(2), 101-112.
- Chataway, J. and Tait, J. (1993) Is Risk Regulation a Strategic Influence on Decision Making in the Biotechnology Industry? *Agriculture and Human Values*. Vol X, No. 2, pp 60-67.
- Chataway, J. and Tait, J. (1993) Management of Agriculture-Related Biotechnology: Constraints on Innovation. *Technology Analysis and Strategic Management*, 5(4), 345-367.
- Tait, J. and Levidow, L. (1992) Proactive and Reactive Approaches to Risk Regulation: the Case of Biotechnology, *Futures*, April, 1992, pp 219-231.
- Carr, S. and Tait, J. (1991) Differences in the Attitudes of Farmers and Conservationists and their Implications. *Journal of Environmental Management*, 32, 281-294.
- Tait, J., Chataway, J., & Jones, S. (1990) The Status of Biotechnology - Based Innovations. *Technology Analysis and Strategic Management*, 2(3), 293-305.
- Carr, S. and Tait, J. (1990) Farmers' Attitudes to Conservation. *Built Environment*, 16(3), 218-231.
- Tait, J. (1988) NIMBY and NIABY: Public Perception of Biotechnology. *International Industrial Biotechnology* 8(6), 5-9. (Re-printed in *The Bio-Revolution: Cornucopia or Pandora's Box*, Eds. P. Wheale and R. McNally. Pluto Press).
- Tait, J. (1988) Public Perception of Biotechnology Hazards. *Journal of Chemical Technology and Biotechnology*, 43, 363-372. (Reprinted in *Hazards of Biotechnology: Real or Imaginary*. Eds. A.D. Dayan, P.N. Campbell and T.H. Jukes, 1988. London: Elsevier, pp119-128).
- Tait, E.J. (1987) Environmental Issues and the Social Sciences. *Environment and Planning A*, 19,437-445.
- Tait, E.J. (1978). Factors Affecting the Usage of Insecticides and Fungicides on Fruit and Vegetable Crops in Great Britain: I. Crop-Specific Factors. *Journal of Environmental Management*, 6, 127-142.
- Tait, E.J. (1978). Factors Affecting the Usage of Insecticides and Fungicides on Fruit and Vegetable Crops in Great Britain: II. Farmer-Specific Factors. *Journal of Environmental Management*, 6, 143-151.
- Tait, E.J. (1977). A Method for Comparing Pesticide Usage Patterns between Farmers. *Annals of Applied Biology*, 86, pp 229-240

## Major Project and Programme Reports

RHC (2025) Regulatory Horizons Council Report, The Governance of Engineering Biology. (<https://www.gov.uk/government/publications/regulatory-horizons-council-the-governance-of-engineering-biology>)

Royal Society of Edinburgh and British Standards Institution (2024) *A more sustainable future: the role of the quality infrastructure in scaling net zero*. (<https://rse.org.uk/wp-content/uploads/2024/11/RSE-The-role-of-the-quality-infrastructure-in-scaling-net-zero-report-2024.pdf>)

Tait, J. (2024) *The PAGIT Framework: its role in the governance of UK technologies to drive greater innovation*. British Standards Institution White Paper. (<https://www.bsigroup.com/en-GB/insights-and-media/insights/whitepapers/update-to-pagit-framework-for-innovation/>)

RHC (2024) Regulatory Horizons Council Report, *Regulating Quantum Technology Applications* ([https://assets.publishing.service.gov.uk/media/65ddc83bcf7eb10015f57f9f/RHC\\_regulation\\_of\\_quantum\\_technology\\_applications.pdf](https://assets.publishing.service.gov.uk/media/65ddc83bcf7eb10015f57f9f/RHC_regulation_of_quantum_technology_applications.pdf))

RHC (2023) Regulatory Horizons Council Report on *The Regulation of Hydrogen Fuel Propulsion in Maritime Vessels*. ([https://assets.publishing.service.gov.uk/media/64b13b4f48826b00103a9e4c/the\\_regulation\\_of\\_hydrogen\\_fuel\\_propulsion\\_in\\_maritime\\_vessels.pdf](https://assets.publishing.service.gov.uk/media/64b13b4f48826b00103a9e4c/the_regulation_of_hydrogen_fuel_propulsion_in_maritime_vessels.pdf))

RHC (2022) Regulatory Horizons Council *Neurotechnology Regulation* (<https://assets.publishing.service.gov.uk/media/63e9e8f88fa8f5050ee37d10/rhc-neurotechnology-regulation.pdf>)

RHC (2022) *Regulatory Horizons Council Report on Genetic Technologies*. <https://www.gov.uk/government/publications/regulatory-horizons-council-report-on-genetic-technologies>

McGoohan, A., Tait, J., Raybould, A., Parris, S. and Hammond, K (2021) *Fish Farming in Scotland: Optimising its contribution to climate and environmental policies*. <https://www.innogen.ac.uk/media/304>

Tait, J., McGoohan, A., Raybould, A., Parris, S. and Hammond, K. (2021) *Fish Farming in Scotland: Optimising its contribution to climate and environmental policies*. Policy Brief. [https://www.innogen.ac.uk/sites/default/files/2021-10/Innogen%20Policy%20Brief\\_Salmon%20farming%20in%20Scotland.pdf](https://www.innogen.ac.uk/sites/default/files/2021-10/Innogen%20Policy%20Brief_Salmon%20farming%20in%20Scotland.pdf)

Tait, J. (Technical Author) (2020) *Responsible Innovation – Guide*. British Standards Institution, PAS 440. [https://pages.bsigroup.com/35972/2020-03-17/2cgcnc1?utm\\_source=pardot&utm\\_medium=email&utm\\_campaign=SM-STAN-LAU-PAS-PAS440-2003](https://pages.bsigroup.com/35972/2020-03-17/2cgcnc1?utm_source=pardot&utm_medium=email&utm_campaign=SM-STAN-LAU-PAS-PAS440-2003)

Tait, J., Banda, G. and Watkins, A. (2018) *Proportionate and Adaptive Governance of Innovative Technologies (PAGIT): Case Study: Responsible Governance of Innovative Technologies, Final Report*. Innogen Institute Report to the British Standards Institution. <https://www.innogen.ac.uk/reports/1302>

Tait, J., Banda, G. and Watkins, A. (2017) *Proportionate and Adaptive Governance of Innovative Technologies (PAGIT): a framework to guide policy and regulatory decision making*. Innogen Institute Report to the British Standards Institution. <https://www.innogen.ac.uk/reports/1222>

Committee on Gene Drive Research in Non-human Organisms: Recommendations for Responsible Conduct (2016). *Gene Drives on the Horizon: Advancing Science, Navigating Uncertainty and Aligning Research with Public Values*. Washington DC, the National

Academies Press. <https://www.nap.edu/catalog/23405/gene-drives-on-the-horizon-advancing-science-navigating-uncertainty-and>

Tait, J. (2016) *Environmental Regulation of Advanced Innovative Biotechnologies: Anticipating future regulatory oversight*. Report to ShARE Group of Environment Agencies of the UK and Republic of Ireland. <http://www.sepa.org.uk/media/219333/environmental-regulation-of-advanced-innovative-biotechnologies-anticipating-future-regulatory-oversight.pdf>

Tait, J. and Banda, G. (2016) *Proportionate and Adaptive Governance of Innovative Technologies: the role of regulations, guidelines and standards*. Summary Report to British Standards Institution. <https://www.bsigroup.com/localfiles/en-gb/bis/innovate%20uk%20and%20emerging%20technologies/summary%20report%20-%20adaptive%20governance%20-%20web.pdf>

Tait, J. and Banda, G. (2016) *Proportionate and Adaptive Governance of Innovative Technologies: the role of regulations, guidelines and standards*. Supplementary Report to British Standards Institution.

Tait, J. (2015) *An Adaptive Approach to Delivering Responsible Innovation*. Report to Genabler for the project "Production of Chitosans for Use in Food and Personal Care Products", funded by InnovateUK.

Tait, J., (2014) Bringing it all Together. In *Annual Report of the Government Chief Scientific Adviser, 2014. Innovation: Managing Risk not Avoiding It. Evidence and Case Studies*, pp 129-136. London: Government Office for Science. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/381906/14-1190b-innovation-managing-risk-evidence.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/381906/14-1190b-innovation-managing-risk-evidence.pdf).

Tait, J., Bruce, A., Mittra, J., Purves J. and Scannell, J. (2014) *Independent review on anti-microbial resistance regulation/innovation interactions and the development of antimicrobial drugs and diagnostics for human and animal diseases: Main Report*. 14<sup>th</sup> Dec., 2014. Report to ESRC for the O'Neill Commission on Antimicrobial Resistance <http://www.innogen.ac.uk/reports/946>.

Omidvar, O., de Grijs, M., Castle, D., Mittra, J., Rosiello, A. and Tait, J. (2014) *Regenerative Medicine: Business Models, Venture Capital and the Funding Gap*. Report to ESRC and InnovateUK, 30<sup>th</sup> Oct, 2014. <http://www.innogen.ac.uk/downloads/RegenerativeMedicine-BusinessModels-VentureCapital-and-theFundingGap-Oct14.pdf>

Mittra, J., Mastroeni, M. and Tait, J. (2014) *Engaging with Uncertainty and Risk in Agricultural Biotechnology Regulation: Delivering Safety and Innovation*. Report from ESRC Knowledge Exchange Project with Syngenta, Jan. 2014. <http://innogen.ac.uk/reports/883>

Mastroeni, M., Mittra, J. and Tait, J. (2012) *Methodology for the Analysis of Life Science Innovation Systems (ALSIS) and its Application to Three Case Studies*. TSB Regenerative Medicine Programme: Value Systems and Business Models. REALISE Project. Innogen Centre Report to Technology Strategy Board. 29<sup>th</sup> May, 2012. <http://www.innogen.ac.uk/reports/490>

Lowrie, H., Mastroeni, M., Mittra, J. and Tait, J. (2011) *Interdisciplinary Methodology for the Analysis of Life Science Innovation Systems*, Innogen Working Paper no 92, Sept., 2011. <http://www.genomicsnetwork.ac.uk/media/Innogen%20Working%20Paper%2092.pdf>

Wamae, W., Goyal-Rutsaert, P., Morgan Jones, M., Ni Chonail, S., Tait, J. and Chataway, J. (2011) *Translational Research in Agriculture and Food Production*. RAND Technical Report to BBSRC and DEFRA. Cambridge, UK: RAND Europe. [http://www.rand.org/content/dam/rand/pubs/technical\\_reports/2011/RAND\\_TR986.pdf](http://www.rand.org/content/dam/rand/pubs/technical_reports/2011/RAND_TR986.pdf)

Nuffield Council on Bioethics (2011) *Biofuels: Ethical Issues*. (Working Party Chaired by J. Tait) [http://nuffieldbioethics.org/wp-content/uploads/2014/07/Biofuels\\_ethical\\_issues\\_FULL-REPORT\\_0.pdf](http://nuffieldbioethics.org/wp-content/uploads/2014/07/Biofuels_ethical_issues_FULL-REPORT_0.pdf)

Mitra, J. and Tait, J. (2009) Stem Cells. In *Coordination Action on Building Robust, Integrative inter-Disciplinary Governance Models for Emerging and Existing Risks (Risk Bridge); Final Report*. EC Project No SAS6-CT-2006-036661-RISKBRIDGE; pp 224-268.

Tait, J. (2009) Risk Governance of Genetically Modified Crops in Europe. In International Risk Governance Council (IRGC) Report, *Risk Governance Deficits: an analysis and illustration of the most common deficits in risk governance*. Geneva: IRGC [www.irgc.org](http://www.irgc.org).

Tait, J. (2009) *Risk Governance of GM Crops in Europe: Decision Nodes and Incubation Periods in Generating a Risk Governance Deficit*. International Risk Governance Council, Lausanne, Switzerland. [https://irgc.org/wp-content/uploads/2012/04/GM\\_crops\\_full\\_case\\_study\\_web.pdf](https://irgc.org/wp-content/uploads/2012/04/GM_crops_full_case_study_web.pdf)

Tait, J. (2008) *Risk Regulation and the Shaping of Biotechnology for Agriculture*. Report: International Assessment of Agricultural Science and Technology for Development (IAASTD)

Tait, J. with Wield, D., Chataway, J. and Bruce, A. (2007) *Health Biotechnology to 2030*. Report to OECD International Futures Project, "The Bio-Economy to 2030: Designing a Policy Agenda", OECD, Paris, pp 51; <http://www.innogen.ac.uk/reports/487>; <https://www.oecd.org/sti/futures/long-termtechnologicalsocietalchallenges/40922867.pdf> .

Tait, J., Bruce, A., Shelly-Egan, C., Rosiello, A., Nicholls, N., Butterfield, G., Yogendra, S., Lyall, C., Suk, J., Plastow, G. and Huzair, F. (2007) *Modern Biotechnology in Primary Production and Agro-food*. In E. Zike, I. Papartyfon, O. Wolf, M. Gomez-Barbero, A.J. Stein and A-K. Bock, *Consequences, Opportunities and Challenges of Modern Biotechnology for Europe (Bio4EU)*, Seville, Spain: Institute for Prospective Technology Studies (IPTS), Report EU 22728 EN, pp49-80. <http://bio4eu.jrc.ec.europa.eu/documents/eur22728en.pdf>

Tait, J. (project leader) *et al.* (2007) Case Studies Report: The Impact of Primary Production Applications. Annex to Report 3, Deliverable 20, Framework Service Contract 20. *Consequences, Opportunities and Challenges of Modern Biotechnology for Europe (Bio4EU-Task 2)* <http://bio4eu.jrc.ec.europa.eu/documents/eur22728en.pdf>

Brownlie, J., Peckham, C., Waage, J., Woolhouse, M., Lyall, C., Meagher, L., Tait, J., Baylis, M., Nicoll, A. (2006) *Foresight. Infectious Diseases: Preparing for the Future. Future Threats*. Office of Science and Innovation, London. <http://www.foresight.gov.uk/Infectious%20Diseases/t1.pdf> (accessed 081120)

Tait, J., Meagher, L., Lyall, C. and Suk, J. (2006) *Foresight. Infectious Diseases: Preparing for the Future. Risk Analysis*. Office of Science and Innovation, London, pp 47. <http://www.foresight.gov.uk/Infectious%20Diseases/t2.pdf> (accessed 081120)

Lyall, C., Suk, J., and Tait, J. (2006) *Foresight. Infectious Diseases: Preparing for the Future. Risk Evaluation Work Package: Results from Expert Survey*. Office of Science and Innovation, London, pp 283. <http://www.foresight.gov.uk/Infectious%20Diseases/T3.pdf> (accessed 081120)

Ann Bruce, Renate Gertz, Cecilia Oram, Jonathan Suk, Joyce Tait, Chris Warkup, Bruce Whitelaw, September 2005. *Animal Cloning and Genetic Modification: a Prospective Study: Report 2: Cloned Animals, Socio-Economic Issues*. Report to Institute of Prospective Technology Studies, Seville, pp 67.

Annette Braun, Ann Bruce, Renate Gertz, Cecilia Oram, Jonathan Suk, Joyce Tait, Chris Warkup, Bruce Whitelaw, October 2005. *Animal Cloning and Genetic Modification: a Prospective Study: Report 3: GM Animals, Socio-Economic Issues*. Report to Institute of Prospective Technology Studies, Seville, pp 117.

Catherine Lyall, Jonathan Suk, Joyce Tait, July 2005. *Detection and Identification of Infectious Diseases: Results from Expert Survey*. Report to UK Office of Science and Innovation, Foresight Team, pp 284.

Joyce Tait, Laura Meagher, Catherine Lyall and Jonathan Suk, December 2005. *Detection and Identification of Infectious Diseases: Risk Analysis Report*. Report to Office of Science and Technology Foresight Project, Detection and Identification of Infectious Diseases, Risk Evaluation Work Package, pp 54.

Tait, J. and Williams, R. (2003) *Final Report*, ITSAFE Project (Integrating Technological and Social Aspects of Foresight in Europe. EC Project No STPA-2001-00010.

Tait, J. and Lyall, C. (2002) *Foresight in a Multi-Level Governance Structure: Policy Integration and Communication*. Paper Prepared for EC STRATA-ETAN Expert Group on 'Mobilising Regional Foresight for an Enlarged European Union, pp 27.

Tait, J., Williams, R., Bruce, A and Lyall, C (2002) *Interdisciplinary Integration in the Fifth Framework Programme (II-FP5): Final Report*. EC Accompanying Measure SEAC 1999-00034. Report to European Commission, pp 62.

Tait, J., Williams, R., Bruce, A and Lyall, C (2002) *Interdisciplinary Integration in the Fifth Framework Programme (II-FP5): Annexes to Final Report*. EC Accompanying Measure SEAC 1999-00034. Report to European Commission, pp 201.

Tait, J., Williams, R., Bruce, A and Lyall, C (2002) *Interdisciplinary Integration in the Fifth Framework Programme (II-FP5): Guidelines for Interdisciplinary Researchers and Research Managers*. EC Accompanying Measure SEAC 1999-00034. Report to European Commission, pp 12.

Tait, J., Allan, A., Wouters, P. and Ross Robertson, A. (2002) *The Precautionary Principle: its Relevance to the Work of SEPA*. Report to the Scottish Environmental Protection Agency.

Tait, J. (2001) How are governments influencing innovation and uptake of technologies for sustainable farming systems: pesticides and biotechnology. *Adoption of Technologies for Sustainable Farming Systems*, The Wageningen Workshop, OECD, Paris.

Tait, J., Bruce, A., and Lyall, C. (2001) *Literature Review: Studies on People's Values in Relation to Chemicals and their Effects on Humans and the Natural Environment*. Report to the Royal Commission on Environmental Pollution.

Tait, J. (2001) *Risk Assessment and Regulation: Interactions among Industry, Public and Policy Makers*. Report to the Royal Commission on Environmental Pollution.

Tait, J., Chataway, J. and Wield, D. (2001). *Policy Influences on Technology for Agriculture: Chemicals, Biotechnology and Seeds - Final Report*. Policy Influences on Technology for Agriculture (PITA): Report to the European Commission Targeted Socio-Economic Research Programme (TSER), Project no. SOE1/CT97/1068. Available at:  
<http://www.technology.open.ac.uk/cts/pita/> and  
<http://www.supra.ed.ac.uk/NewWeb/Reports.htm>

Tait, J. and Chataway, J. (2000) *Policy Influences on Technology for Agriculture: Chemicals, Biotechnology and Seeds - Novartis Agribusiness Monograph*. Policy Influences on Technology for Agriculture (PITA): Report to the European Commission Targeted Socio-Economic Research Programme (TSER), Project no. SOE1/CT97/1068. Available at:  
<http://www.technology.open.ac.uk/cts/pita/> and  
<http://www.supra.ed.ac.uk/NewWeb/Reports.htm>

Tait, J. and Chataway, J. (2000) *Policy Influences on Technology for Agriculture: Chemicals, Biotechnology and Seeds - Zeneca Agrochemicals Monograph*. Policy Influences on Technology for Agriculture (PITA): Report to the European Commission Targeted Socio-Economic Research Programme (TSER), Project no. SOE1/CT97/1068. Available at:

<http://www.technology.open.ac.uk/cts/pita/> and  
<http://www.supra.ed.ac.uk/NewWeb/Reports.htm>

Tait, J., Williams, R. and Lyall, C. (2000) *Roadmapping Foresight: Monitoring and Evaluation of Complex Programmes*. SUPRA Report to the Office of Science and Technology, May 2000.

Martin, S. and Tait, J. (1993) *Release of Genetically Modified Organisms: Public Attitudes and Understanding*, Summary Report, pp 12. (Report to the Department of Trade and Industry, Laboratory of the Government Chemist, June 1992). Published by Centre for Technology Strategy, Open University, Walton Hall, Milton Keynes MK7 6AA.

Martin, S. and Tait, J. (1993) *Biotechnology: Cognitive Structures of Public Groups*, pp 55. (Report to the Department of Trade and Industry, Laboratory of the Government Chemist, June 1992). Published by Centre for Technology Strategy, Open University, Walton Hall, Milton Keynes MK7 6AA.

Martin, S. and Tait, J. (1993) *Release of Genetically Modified Organisms: Public Attitudes and Understanding*, pp 135. (Report to the Department of Trade and Industry, Laboratory of the Government Chemist, June 1992). Published by Centre for Technology Strategy, Open University, Walton Hall, Milton Keynes MK7 6AA.

Tait, J. (1993) Written evidence on behalf of ESRC to Report of House of Lords Select Committee on Science and Technology on *Regulation of the United Kingdom Biotechnology Industry and Global Competitiveness*, 7th Report, Session 1992/93. London: HMSO HL Paper 80-I, pp187-196.

Tait, J. (1990) *Biotechnology: Interactions between Technology, Environment and Society* EC/MONITOR/FAST Programme 1989-90 Synthesis Report No.1 Project: Biosphere and the Economy, DGXII/H/3, March 1990.

### **Contributions to government reports**

GCSA (2023) *Pro-innovation regulation of technologies review: cross-cutting and growth duty recommendations* <https://www.gov.uk/government/collections/pro-innovation-regulation-of-technologies-review>

GCSA (2023) *Pro-innovation Regulation of Technologies Review: Digital Technologies* <https://www.gov.uk/government/publications/pro-innovation-regulation-of-technologies-review-digital-technologies>

GCSA (2023) *Pro-innovation regulation of technologies review: life sciences*. <https://www.gov.uk/government/publications/pro-innovation-regulation-of-technologies-review-life-sciences>

### **Contributions to Books and Conference Proceedings**

Tait, J. (2012) "Innovation, Policy, and Public Interactions in the Management of Infectious Diseases". Institute on Science for Global Policy Conference Report – *Emerging and Persistent Infectious Diseases: Focus on Mitigation*. Edinburgh, Oct. 23-26, 2011. Tucson Arizona, USA, [www.scienceforglobalpolicy.org](http://www.scienceforglobalpolicy.org)

Milne, C-P and Tait, J. (2009) Evolution along the Government-Governance Continuum: impacts on medicines innovation in the United States. In eds. C. Lyall, T. Papaioannou and J. Smith, *Limits to Governance: challenges of policy making for the new life sciences*. Aldershot: Ashgate Publishing Limited, pp 107-132.

Tait, J. (2009) Governing Synthetic Biology: Processes and Outcomes. In eds. Markus Schmidt, Alexander Kelle, Agomoni Ganguli-Mitra and Huib de Vriend, *Synthetic Biology: the Technoscience and its Consequences*. Dordrecht NL: Springer, pp 141-154.

- Tait, J. (2008). Risk Governance of Genetically Modified Crops: European and American Perspectives. In eds. O. Renn and K. Walker, *Global Risk Governance: Concept and Practice Using the IRGC Framework*. Dordrecht, NL: Springer Science and Business Media; pp 133-153. [https://irgc.org/wp-content/uploads/2012/04/Chapter\\_7\\_GM\\_Crops\\_final.pdf](https://irgc.org/wp-content/uploads/2012/04/Chapter_7_GM_Crops_final.pdf)  
DOI: [10.1007/978-1-4020-6799-0\\_7](https://doi.org/10.1007/978-1-4020-6799-0_7)
- Tait, J., Chataway, J. and Wield, D. (2006) Governance, Policy and Industry Strategies: Agro-biotechnology and Pharmaceuticals. In eds. M. Mazzucato and G. Dosi, *Knowledge Accumulation and Industry Evolution*. Cambridge University Press, pp 378-401.
- Lyll, C. and Tait, J. (2005) Shifting Policy Debates and the Implications for Governance. In eds. C. Lyall and J. Tait, *New Modes of Governance*. Aldershot: Ashgate Publishing Ltd., pp 1-17.
- Tait, J. and Lyall, C. (2005) A New Mode of Governance for Science, Technology, Risk and the Environment. In eds. C. Lyall and J. Tait, *New Modes of Governance*. Aldershot: Ashgate Publishing Ltd., pp 177-188.
- Reiss, T. and Tait, J. (2005) Life Science Innovation: Policy and Foresight. . In eds. C. Lyall and J. Tait, *New Modes of Governance*. Aldershot: Ashgate Publishing Ltd., pp 69-87.
- Tait, J. and Bruce, A. (2004) Global Change and Transboundary Risks. In eds. T. McDaniels and M. Small, *Risk Analysis and Society: an interdisciplinary characterisation of the field*. Cambridge University Press, pp 367-419. (Commissioned by Society for Risk Analysis for the International Symposium on *Risk and Governance*, Warrenton, VA, USA, June 2000.)
- Tait, J. (2002) Report from the Foresight and Multi-Level Governance Session. *Conference Proceedings. The Role of Foresight in the Selection of Research Policy Priorities*, 13-14 May, 2002, Seville. European Commission Report, EUR 20406, pp 165-167.
- Tait, J., Morris, D. and Ison, R. (1997). Orchestrating Discipline-Based Research and Learning. In eds. F. Stowell, S. McRobb, R. Lander, R. Ison, J. Holloway and R. Armson, *Systems for Sustainability: People, Organisations and Environments*. New York: Plenum, pp 307-312.
- Martin, S. and Tait, J. (1992) Attitudes of Selected Public Groups in the UK to Biotechnology. In ed. J. Durrant, *Biotechnology in Public: a Review of Recent Research*, Science Museum for the European Federation of Biotechnology, 28-41.
- Tait, J. (1990) NIMBY and NIABY: Public Perceptions of Biotechnology. In eds. P. Wheale and R. McNally, *The BioRevolution: Cornucopia or Pandora's Box*, London: Pluto Press, pp 224-236.
- Tait, E.J. (1987). Planning an Integrated Pest Management System. In eds. A.J. Burn, T.H. Coaker, and P.C. Jepson, *Integrated Pest Management*. London: Academic Press, pp.198-207.
- Tait, J. (1987) Rationality in Pesticide Use and the Role of Forecasting. In eds. K.J. Brent and R.K. Atkin, *Rational Pesticide Use*. Cambridge University Press, pp. 225-238.
- Tait, E.J. (1983). Pest Control Decision Making on Brassica Crops In ed. T.H. Coaker, *Advances in Applied Biology*, Vol.8. London: Academic Press, pp 122-188.
- Tait, E.J. (1982) Farmers' Attitudes and Crop Protection Decision Making. In ed. R.B. Austin, *Decision Making in the Practice of Crop Protection*, British Crop Protection Council Monograph No.25, pp 43-52.
- Tait, E.J. (1981). The Flow of Pesticides: Industrial and Farming Perspectives. In ed. T. O'Riordan and R.K. Turner, *Progress in Resource Management and Environmental Planning*, Vol.3, John Wiley and Sons Limited, Chichester, pp 219-250.

Tait, E.J. (1977). The Use of Forecasting as a Method of Rationalising Pesticide Applications. *Proceedings 1977 British Crop Protection Conference - Pests and Diseases*, pp.235-240.